



















ASTROGRAPHIC CATALOGUE  
1900·0.

HYDERABAD SECTION

DEC.  $-16^{\circ}$  to  $-21^{\circ}$ .

UNIV. OF  
CALIFORNIA

FROM PHOTOGRAPHS TAKEN AND MEASURED AT THE NIZAMIAH  
OBSERVATORY, HYDERABAD.

UNDER THE DIRECTION OF

R. J. POCOCK, B.A., B.Sc., F.R.A.S.

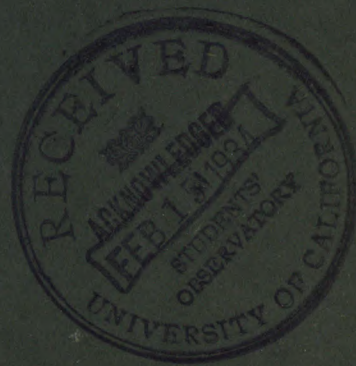
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VOL. I.

MEASURES OF RECTANGULAR  
CO-ORDINATES AND DIAMETERS  
OF 63436 STAR-IMAGES

ON PLATES WITH CENTRES IN

DEC.  $-17^{\circ}$



EDINBURGH:  
PRINTED FOR H.H. THE NIZAM'S GOVERNMENT  
By NEILL & CO., LIMITED, 212 Causewayside.  
1918.

*Price Rs. 12 or 16s. Net.*



to view  
attached



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## NOTE.

No second proofs were submitted by the printers, the first proofs containing comparatively few corrections. While the printing was in progress an exhaustive examination of all discordant residuals from the reference stars was made, in the course of which it was found advisable to re-solve a few of the plates, and a good many measures were found to be faulty, usually on the earlier plates, the measures of which (particularly of the bright stars near the edges which give a large image) are not as good as those of later plates owing to the inexperience of the measurers. All cases where it was found possible to materially improve the constants or measures are given in the following list of errata, as also all other errors found when comparing the catalogue of standard co-ordinates with the general body of the catalogue, or other errors found incidentally.

Experience has shown that bad measures are almost all confined to the earlier plates, particularly to some in which the guiding is not quite perfect. It is also believed that a much smaller proportion of errors would be found among the faint stars than among the bright.

Nearly all the stars badly measured are close to the edges of the plate, and it will be seen that there is a marked tendency to bisect the images of the stars too far from the plate centre. Previous to undertaking this checking it had been suspected that such a tendency existed in the case of measures of bright stars on early plates.

## ERRATA.

VOL. I. ZONE  $-17^{\circ}$ .

PAGE	PAGE
xx, The line—	15, Plate 774, R.A. $1^{\text{h}} 56^{\text{m}}$ .
$0^{\text{h}} 40^{\text{m}} 295\ 40\ 419\   2^{\text{h}} 16^{\text{m}} 463\ 175\ 453$	A            B            C
has been omitted from the Table of	$-.02557\ -.00030\ +.2798$
Refractions.	D            E            F
xxxvii, In formula at head of table read—	$+.00039\ -.02565\ +.0354$
$\xi = X - \frac{1}{30}X - \frac{1}{100}X$ —following table.	18, Plate 837, R.A. $2^{\text{h}} 52^{\text{m}}$ .
8, 729*, for 21.353 read 21.349.	A            B            C
8, Plate 803, R.A. $0^{\text{h}} 28^{\text{m}}$ .	$-.02551\ +.00658\ +.0665$
A            B            C	D            E            F
$-.02553\ +.00635\ +.0936$	$-.00705\ -.02575\ -.1167$
D            E            F	21, 6008*, for 0.694 read 0.698.
$-.00639\ -.02546\ -.2718$	21, 6139*, for 7.468 read 7.472.
HYDERABAD ASTRO. CATALOGUE.	22, 6423*, for 23.258 read 23.262.

a



## PAGE

27, 8513\*, for 23.270 read 23.277 and for 1.912 read 1.906.

29, for 9076\*, read 9076.

32, 10158\*, for 2.643 read 2.650.

48, 15950\*, for 1.247 read 1.242.

51, 17247\*, for 24.535 read 24.529.

75, 26089\*, for 71.225 read 17.225.

79, 27500\*, for 0.558 read 0.564.

80, 27981\*, for 23.500 read 23.492.

82, 28521\* and 28522\* are out of order, but numbers must stand to avoid confusion.

83, 29253\*, for 25.436 read 25.428.

85, for \*29874 read 29874\*.

86, Plate 480, R.A. 10<sup>h</sup> 12<sup>m</sup>.

A	B	C
-01743	+01222	-1713
D	E	F
-01177	-01754	-0144

87, 30582\*, for 2.543 read 2.548.

88, 30843\*, for 25.122 read 25.116.

92, 32191\*, for 11.748 read 11.752.

92, 32333\*, for 19.845 read 19.843 and for 13.504 read 13.508.

94, 32979\*, for 19.878 read 19.882.

94, 33270\*, for 16.696 read 19.696.

96, Plate 498 R.A. 12<sup>h</sup> 12<sup>m</sup>.

A	B	C
-01780	+00520	-1157
D	E	F
-00496	-01790	-0326

96, 33937\*, for 8.941 read 8.946.

101, 35716\*, for 25.359 read 25.363.

103, 36336\*, for 24.924 read 24.918.

104, Plate 622, R.A. 13<sup>h</sup> 48<sup>m</sup>.

A	B	C
-02556	+00536	+2441
D	E	F
-00546	-02589	-2221

108, 38450\*, for 7.056 read 7.064.

113, 40154\*, for 1.017 read 1.021.

115, 41002\*, for 11.836 read 11.840.

116, 41511\*. The \* is placed in the wrong column.

119, Plate 646, R.A. 15<sup>h</sup> 32<sup>m</sup>.

A	B	C
-02555	+00544	+1524
D	E	F
-00557	-02583	+1991

## PAGE

127, Plate 662 R.A. 16<sup>h</sup> 28<sup>m</sup>.

A	B	C
-02565	+00582	+3024
D	E	F
-00574	-02562	-3103

134, 48190\*, for 7.520 read 7.524 and for 20.044 read 20.042.

145, 52089\*, for 19.504 read 19.508.

163, 58918\*, for 22.990 read 22.986.

171, Insert star:—

	d	x	y
61763A	8	2.494	3.746.

172, 62187\*, for 24.866 read 24.870.

174, 63013\*, for 3.959 read 3.955.

177, 64159\*, for 1.410 read 1.415.

179, for 65073\*, read 65073.

179, for 65075 read 65075\*.

179, Plate 571, R.A. 21<sup>h</sup> 32<sup>m</sup>.

A	B	C
-01730	+00246	-1611
D	E	F
-00235	-01773	+0888

180, Plate 780, R.A. 21<sup>h</sup> 48<sup>m</sup>.

A	B	C
-02548	+00436	+0777
D	E	F
-00405	-02596	-2245

182, Plate 769 R.A. 22<sup>h</sup> 12<sup>m</sup>.

A	B	C
-02546	+00392	+2295
D	E	F
-00371	-02548	-0017

183, 66304\*, for 18.974 read 18.969.

188, Plate 801, R.A. 23<sup>h</sup> 24<sup>m</sup>.

A	B	C
-02538	+00158	+3043
D	E	F
-00161	-02577	-2647

190, read 68968\*, for 68698\*.

222, R.A. 22<sup>h</sup> 28<sup>m</sup>, Washington 8391, for 3.2292 read 3.2067.



# HYDERABAD ASTROGRAPHIC CATALOGUE.

1900.

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VOL. I.

---

## INTRODUCTION.

[This Introduction is modelled on that of vol. i. of the Oxford Astrographic Catalogue (which is itself modelled on the Greenwich Introduction); a good deal of information is repeated from the Oxford Introduction for convenience of reference.]

### I.—HISTORICAL SUMMARY.

The history of the Astrographic Chart and Catalogue is now so well known that there is no need to refer to it in detail; it will be sufficient to indicate the manner in which the Nizamiah Observatory, Hyderabad, came to undertake a share of the work.

At the International Congress which met in Paris in April 1887, the seven zones, from  $17^{\circ}$  to  $23^{\circ}$  S., declination inclusive, were assigned to the Observatory of Santiago. The work not being carried out by this Observatory was assigned in 1900 to the Observatory which it was proposed should be established at Montevideo. This project falling through, Santiago asked for the zone to be allotted to them again.

Meanwhile the late Nawab Zuffer Jung having bequeathed two large telescopes to His Highness the Nizam of Hyderabad, the Hyderabad Government offered to undertake a share of the astrographic work at the Observatory which they proposed to establish.

This Observatory was actually established in 1908, with the late Mr A. B. Chatwood as its first Director, and is now known as the Nizamiah Observatory.

Consequently in 1909 there were two Observatories—those of Santiago and Hyderabad—offering to undertake the zones in question. Finally the Conference decided to divide the work of the Catalogue between the Observatories of Santiago,



Hyderabad, and La Plata ; the work on the Chart at the same time being divided between Paris and Santiago (His Highness the Nizam's Government were never in a position to undertake a share in the Chart). The following resolution was accordingly passed by the Conference on 1909 April 20 :—

“ Il est désirable que la zone disponible de  $-17^{\circ}$  à  $-23^{\circ}$ , non encore commencée, soit partagée, pour le Catalogue, entre le nouvel Observatoire de Santiago, le nouvel Observatoire de Hyderabad (Deccan) créé par le Gouvernement de S. A. le Nizam el, s'il y a lieu, l'Observatoire de l'Université de La Plata. M. B. Baillaud sera chargé de se mettre en relation avec les directeurs de ces établissements pour la répartition du travail.”

In accordance with this resolution Hyderabad was asked to undertake the four zones,  $-17^{\circ}$  to  $-20^{\circ}$  inclusive, and this was agreed to by the Hyderabad Government. At the same time the Director of the Observatory at Santiago announced his intention of doing the whole seven zones.

There were great delays in commencing the work at Hyderabad, which need not be detailed here ; beyond a little preliminary computation no work had been done when the present director succeeded Mr Chatwood in March 1914. The photographic telescope was got into working order towards the end of 1914, and regular work was begun on the Astrographic Catalogue in 1914 December (the earliest plates used are dated 1914 December 9). Since then there have been several interruptions to the work which are fully detailed in the Annual Reports of the Observatory—the most serious of these was in the cold weather, 1915–16, owing to the difficulty of obtaining plates in war time, which culminated in the loss of a large quantity of plates when the S.S. *Persia* was sunk in the Mediterranean. The printing has also been considerably delayed by the fire at Messrs Neill & Co.'s works at Edinburgh in 1916 May. The last plate in the present volume was taken on 1916 November 25, and measured a week later, so that the whole zone was spread over exactly two years.

It may be stated here that the Hyderabad Government having only guaranteed the existence of the Observatory till 1919 March, it has been necessary throughout to carry the work out as rapidly as possible ; it has not, therefore, been possible to secure fresh plates to replace some of the earlier plates, which do not quite come up to the standard aimed at throughout the work.

The following is a list of persons who have taken part in the actual taking and measuring of plates for the present volume, with the initials by which they are denoted :—



Name.	Initials.	Name.	Initials.
R. J. Pocock . . . . .	P.	Syed Ahmed . . . . .	A.
T. P. Bhaskaran . . . . .	B.	M. Anantanarayanan . . . . .	N.
C. Hanmant Rao . . . . .	H.	M. K. Bappu . . . . .	M.
F. B. Shroff . . . . .	F.	U. S. Raghavendra Rao . . . . .	R.
D. R. Sripathi Rao . . . . .	S.	M. Ahmadullah . . . . .	M.A.

In addition, A. J. Govinda Raja, M. Azimuddin, A. V. Bheema Rao, Prakasa Rao, and Dawood Bhai, the two latter working as volunteers, have assisted in taking down the measures, computing, preparing the copy for press and reading the proofs ; A. Abkhan has also assisted with the copy for press.

During the course of the work the following papers relating to astrographic work or methods have been published :—

“ The Number of Stars of different Magnitudes in the Perth Astrographic Catalogue, vol. ii.,” by R. J. Pocock. *Monthly Notices of the R.A.S.* 1915 January.

“ The Magnitude Scales of some Volumes of the Astrographic Catalogue,” by R. J. Pocock. *Monthly Notices of the R.A.S.* 1915 June.

“ Methods of Determining the Tilt of Photographic Plates,” by R. J. Pocock. *Monthly Notices of the R.A.S.* 1915 June.

“ The Proper Motion of A.G.Wa. 5002,” by R. J. Pocock. *Astronomische Nachrichten*, Band 201, No. 4814.

“ Comparison of the Bordeaux, Washington, and Algiers Catalogues,” by R. J. Pocock. *Monthly Notices of the R.A.S.* 1915 December.

“ Photographic Measures of Double Stars,” by R. J. Pocock. *Astronomische Nachrichten*, Band 202, No. 4827.

“ The Distribution in Space of the Stars in Zone  $+25^\circ$  of the Oxford Astrographic Catalogue,” by R. J. Pocock. *Monthly Notices of the R.A.S.* 1916 March.

“ Ninth Note on the Number of Faint Stars with Large Proper Motions,” by R. J. Pocock. *Monthly Notices of the R.A.S.* 1916 March.

“ Note on the Magnitude Scale of Washington A.G. Catalogue,” by R. J. Pocock and T. P. Bhaskaran. *Astronomical Journal*, vol. xxix., No. 688.

“ Note on the Magnitude Equation of Washington A.G. Catalogue,” by R. J. Pocock. *Astronomical Journal*, vol. xxix., No. 688.

“ Eleventh Note on the Number of Faint Stars with Large Proper Motions,” by R. J. Pocock. *Monthly Notices of the R.A.S.* 1916 June.

“ Photographic Measures of Double Stars,” by T. P. Bhaskaran. *Astronomical Journal*, vol. xxx., No. 700.



## II.—THE INSTRUMENT.

The telescope house in which the astrographic telescope is erected is a two-storied circular building to the south and a little to the west of the main building. The lower story is used as a storeroom, and the upper story—which is reached by a staircase outside the building—contains the telescope. The telescope is mounted on a pier built of stone, 19 feet 6 inches in height ; the level of the ground on which the telescope house is built is, however, considerably below that on which the main building stands, and the telescope stands well below the 1800 foot level. The revolving dome is 25 feet in diameter, the opening being continued considerably beyond the zenith. This dome was made by Messrs T. Cooke & Sons of York, and sent out in parts to India, where it was erected by Mr A. B. Chatwood in 1909. The foundation of the pier is 7 feet 6 inches square by 1 foot 3 inches high ; from this the pier tapers to 3 feet 9 inches square at a point 1 foot 3 inches below the top ; for the last 1 foot 3 inches the pier rises vertically, this top portion consisting of one piece of stone ; this pier is isolated from the upper floor of the telescope house, and has a hollow centre to permit of the wire rope carrying the weight for the driving clock being carried through it.

The instrument itself is not of the pattern laid down by the Astrographic Congress in 1887, but is a telescope constructed by Messrs T. Cooke & Sons, of 133 inches focal length, fitted with one of their patent photo-visual lenses of 8 inches aperture.

To this telescope is rigidly attached, by means of four aluminium brackets, a guiding telescope, also constructed by Messrs Cooke & Sons in 1913–14, fitted with a 10-inch Grubb lens ; the eyepiece of this telescope is moveable in R.A. and declination, and by means of special scales may be directed to any part of the field desired. The telescope is always used east of the pier ; in this position the guiding telescope is east of the photographic, and the eyepiece of the guiding telescope is well below the photographic dark slide of the other. The telescope was originally fitted with a 4-inch guiding telescope, and the redistribution of weight necessitated by replacing this with the larger and heavier 10-inch telescope is not quite perfect ; in consequence the telescope driving clock guides much better east of the meridian than west, and, therefore, most of the plates have been exposed at small east hour angles.

The telescope was carefully adjusted in 1914, and no alterations in the adjustments have been made since. The lens has been untouched—except that its outer surface has been cleaned as occasion arose ; the arrangements made for focussing and adjusting the tilt of the plate are detailed in *Monthly Notices of the R.A.S.*, 1915 June, and have not been deliberately altered since. There has been, however, one curious alteration of focal length at the end of the work on this zone. A



duplicate dark slide is always kept in the telescope house in case of any difficulty occurring with the one in ordinary use. This duplicate dark slide was never used until 1916 November, when by accident a few plates were exposed with it. No record was made of the fact, which was only discovered on inquiry, when on reduction some of the plates were found to have an abnormal scale value.

It appears probable that the plates with this unusual scale value were some—perhaps all—of those exposed in this duplicate dark slide; one or two of these plates show rather large and apparently erratic inconsistencies with the overlapping plates, while others show no such differences; it would perhaps have been better to retake these regions, but this would have been difficult and might have considerably delayed the work—in the present volume only three plates are involved.

A large scale value was unavoidable throughout, for reasons detailed under III. below. The orientation corrections are also large; this is due to the fact that plenty of room had to be allowed for the plate both in telescope and in the réseau printing frame, first, because the plates supplied were not all of uniform size, and second, so that there should be no difficulty in bringing the plate into close contact with the réseau, which might have led to damage to the réseau.

### III.—PHOTOGRAPHIC.

The plates for the Astrographic Catalogue have all been given at least two exposures, the second exposure being half the length of the first, and the telescope being slightly displaced in declination between the two exposures. The actual length of the exposures has varied with the quality of the plates; at first the primary exposure was fifteen minutes, but as the quality of the plates deteriorated with age, this was lengthened to eighteen and ultimately to twenty minutes. With the arrival of a fresh batch of plates in 1916, fifteen-minute exposures were reverted to, but as this gave rather more stars than were required, the exposure was cut down to twelve minutes, at which it remained for the remainder of the zone. The actual exposures given to each plate will be found in the table of details below. The exposures were timed with a mean-time chronometer, and the intervals are therefore given in mean time. The images due to the longer exposure were measured, in every case except one ( $10^h 44^m$ ), when the shorter exposure was used, the longer being defective.

Plates with numbers less than 600 in the present volume are all Barnet Rocket plates, maker's number, B 10,284; plates with numbers over 600 are Barnet Stella plates, maker's number, A 10,412. All the plates were developed with metol-hydroquinone, the great majority by Mr F. B. Shroff, and the remainder by Mr M. K. Bappu.



In the richer regions no effort has been made to obtain large numbers of stars; the first plate taken has usually been accepted, and where plates obviously contained a large number of stars, measurers were instructed to omit all the very faint stars; on the other hand, in poor regions of the sky every effort has been made to secure plenty of stars, several plates often being taken of the same region, that which showed most stars being chosen for measurement; in such cases measurers were instructed to be careful not to omit any stars. The aim has been to avoid as far as possible plates with less than 150 stars, although there are a few such plates; there is no plate with less than 100.

The ratio of the number of stars to the number shown on Schönfeld's map has also been used as a criterion. There are only two cases in which a ratio of two (equivalent to 2.5 times Argelander) has not been attained, and for about two-thirds of the plates a ratio of three or more has been attained. The average number of stars per plate is 352.

Two réseaux have been used in the course of the work on this zone, one for plates with numbers less than 600, and one for plates with numbers over 600. The former was one of a number supplied to the Observatory by the Société Genevoise, none of which were very satisfactory. Owing to the war, however, it was impossible to obtain one elsewhere, and therefore this, the best available, was used. The lines are fairly clearly cut, but they are not rectangular; this, however, seems to be the only important error, and as it is automatically corrected by the plate constants, it is an allowable error: its effect is to make the sum of the two orientation constants a small positive quantity instead of zero. This réseau is ruled to the standard scale with a spacing of 5.00 mm. between the lines; as the focal length of the Hyderabad telescope requires a spacing of approximately 4.915 mm., this involves a large scale correction of about  $-0.1750$  times the measured co-ordinates.

This réseau (Hyderabad No. 1) had been in India a considerable time when brought into use, and contained a large number of "pin-holes," which were rapidly added to as the réseau was used; no doubt the hot dry climate renders the silver film very friable, consequently some of the late plates are very spotted. To remedy this Professor Turner sent from Oxford their réseau No. 5, made by Messrs Gautier, which was never used at Oxford owing to the fact that the line  $y=3$  is displaced. This réseau has, however, been used for all the later plates, the measures being corrected for the error (see below "Errors of Réseau"); as it is ruled to suit the focal length of the Oxford instrument, with spacings of 5.04 mm., its use involves scale-value corrections of  $-0.02500$  approximately to the measured co-ordinates. The réseau was printed on the plate just before measurement by an electric light—stopped down so as to allow of an exposure of about ten seconds for new plates—



at a distance of 18 feet, the réseau and plate being prevented from coming into contact by an edging of moderately thick paper.

The following table gives the particulars of the plates in the present volume.

The first column gives the number of the plate in the Hyderabad series.

The second column gives the fraction of the year corresponding to the (astronomical) day on which the exposure was made, to three places of decimals.

The third column gives the approximate R.A. of the plate centre.

The fourth column gives the hour angle corresponding to the middle of the exposure which was subsequently measured. Clock corrections have been applied where they amounted to one minute or more.

The fifth column gives the lengths of the exposures (in mean time); as already stated, the longest exposure was measured in every case except one ( $10^h 44^m$ ).

The sixth column indicates the observer who guided the telescope; a second observer was always present to assist in setting the instrument, etc. The significance of the different initials is explained above.

The seventh column shows which of the four measuring instruments was used. With the exception of two plates, each measurer used the same instrument throughout. Plates measured in Nos. 1 and 2 had to be measured with the glass side up; only nine plates in this volume were measured in No. 2.

The eighth column shows the measurer. The same measurer measured each plate throughout, except in one case ( $17^h 32^m$ ), when, owing to R.'s illness, the last five lines in the reverse position were measured by S.

The ninth column gives the number of stars measured.

The tenth column gives the ratios of the numbers in the ninth column to the numbers in corresponding areas of Schönfeld's map.

The eleventh column shows the number of stars in the corresponding regions of A.G. Washington Catalogue.

*List of Plates in Zone  $-17^\circ$ .*

No. of plate.	Year and fraction, 1900.	R.A. of centre.		Hour angle.		Exposures.	Observer.	Instrument.	Measurer.	No. of stars.	Ratio to Schönfeld.	No. in A.G.C.
		h	m	h	m							
791	16.873	0	4	0	5 E.	12 6	A.	4	M.	247	3.8	18
797	16.876		12	0	21 W.	12 12	S.	1	R.	193	3.2	21
802	16.879		20	0	14 E.	12 6	R.	2	M.A.	158	2.5	24
803	16.879		28	0	26 W.	12 6	N.	1	S.	191	3.0	17
771	16.802		36	0	11 E.	12 6	F.	2	M.A.	161	2.2	17
792	16.873		44	0	11 E.	12 6	P.	1	R.	202	4.0	14
786	16.871	0	52	0	17 E.	12 6	A.	3	N.	208	4.4	18
793	16.873	1	0	0	1 W.	12 6	A.	3	N.	167	3.5	13
362	14.936		8	0	9 E.	18 9	A.	4	M.	115	1.9	21
787	16.871		16	0	6 E.	12 6	S.	2	M.A.	150	2.3	17
798	16.876		24	0	9 W.	12 6	H.	4	M.	185	3.0	20
804	16.879	1	32	0	8 W.	12 6	R.	3	A.	206	3.6	24



*List of Plates in Zone —17° (continued).*

No. of plate.	Year and fraction, 1900.	R.A. of centre.		Hour angle.		Exposures.		Observer.	Instrument.	Measurer.	No. of stars.	Ratio to Schönfeld.	No. in A.G.C.
		h	m	h	m	m	m						
772	16·802	1	40	0	46 E.	12	6	A.	1	R.	153	3·0	14
773	16·802		48	0	26 E.	12	6	F.	4	M.	171	2·4	32
774	16·802	1	56	0	5 E.	12	6	A.	3	N.	149	2·5	18
799	16·876	2	4	0	23 W.	12	6	S.	4	M.	212	2·9	25
808	16·882		12	0	24 E.	12	6	S.	1	R.	210	2·6	22
775	16·802		20	0	1 W.	12	6	F.	1	S.	141	2·4	15
805	16·879		28	0	6 E.	12	6	N.	2	M.A.	163	2·7	23
776	16·802		36	0	14 W.	12	6	A.	4	M.	175	3·0	19
390	14·969		44	0	5 E.	15	8	B.	4	M.	144	2·3	15
837	16·901	2	52	0	27 W.	12	6	A.	3	N.	199	3·4	18
363	14·936	3	0	0	46 E.	18	9	A.	4	N.	156	2·5	11
439	15·030		8	0	21 W.	15	8	H.	4	M.	137	2·0	24
777	16·802		16	0	4 W.	12	6	F.	3	A.	173	2·5	17
413	15·016		24	0	31 E.	15	8	F.	1	R.	187	3·1	17
377	14·961		32	0	47 W.	15	8	B.	4	A.	130	2·2	18
433	15·027		40	0	1 W.	15	8	S.	3	A.	161	3·0	19
429	15·025		48	0	30 W.	15	8	F.	1	R.	146	2·1	25
416	15·019	3	56	0	24 E.	15	8	S.	1	S.	213	2·9	24
364	14·936	4	4	0	51 E.	18	9	A.	4	M.	231	3·1	31
391	14·969		12	0	29 E.	15	8	B.	4	N.	189	2·3	34
434	15·027		20	0	36 W.	15	8	A.	3	N.	235	3·2	23
392	14·969		28	0	4 E.	15	8	R.	3	R.	198	2·8	23
412	15·014		36	0	57 E.	15	8	M.	4	M.	235	3·2	25
398	14·972		44	0	25 E.	15	8	A.	1	R.	303	3·1	32
393	14·969	4	52	0	9 W.	15	8	B.	4	M.	222	2·4	37
452	15·099	5	0	0	8 W.	15	8	H.	4	M.	216	3·0	23
451	15·096		8	0	14 W.	15	8	B.	4	M.	243	2·8	29
440	15·030		16	0	19 E.	15	8	H.	1	R.	297	2·8	37
419	15·019		24	0	1 W.	15	8	B.	4	M.	343	3·6	30
394	14·969		32	0	12 W.	15	8	R.	1	R.	287	3·1	31
365	14·936		40	1	22 E.	15	12	R.	3	A.	580	5·2	38
389	14·966		48	0	32 E.	15	8	N.	1	S.	348	2·7	36
383	14·964	5	56	0	59 E.	15	8	F.	1	S.	329	3·2	24
395	14·969	6	4	0	18 W.	15	8	R.	1	S.	359	3·0	38
400	14·972		12	0	24 E.	15	8	A.	3	N.	395	3·5	40
404	14·975		20	0	48 E.	15	8	M.	1	R.	507	3·9	37
423	15·022		28	0	56 E.	15	8	H.	3	A.	395	3·7	34
420	15·019		36	0	33 E.	15	8	S.	3	N.	495	4·2	38
396	14·969		44	0	20 E.	15	8	B.	3	N.	477	3·9	41
401	14·972	6	52	0	19 E.	15	8	N.	3	A.	605	3·8	43
405	14·975	7	0	0	47 E.	15	8	S.	3	A.	1025	5·6	56
424	15·022		8	0	31 E.	15	8	A.	3	A.	1216	6·1	48
402	14·972		16	0	1 E.	15	8	A.	3	N.	880	4·8	49
425	15·022		24	0	7 W.	15	8	A.	3	N.	923	6·8	44
432	15·025		32	0	56 E.	15	8	R.	1	R.	1070	6·4	46
406	14·975	7	40	0	39 E.	15	8	M.	3	N.	1279	7·5	49
437	15·027		48	0	24 E.	15	8	A.	1	S.	1191	7·2	47
403	14·972	7	56	0	5 W.	15	8	A.	1	R.	992	6·2	44
407	14·975	8	4	0	24 E.	15	8	S.	3	A.	832	4·6	55
443	15·030		12	1	3 E.	15	8	H.	1	R.	454	3·2	39
426	15·022		20	0	0	15	8	A.	3	A.	673	4·5	47
448	15·049		28	0	55 E.	15	8	M.	1	R.	607	4·2	36
438	15·027		36	0	26 E.	15	8	S.	3	A.	438	3·4	37
408	14·975		44	0	19 E.	15	8	M.	1	S.	388	3·6	29
444	15·030	8	52	1	37 E.	15	8	N.	4	M.	261	2·7	32
463	15·104	9	0	0	12 E.	15	8	N.	1	S.	225	2·5	29



*List of Plates in Zone —17° (continued).*

No. of plate.	Year and fraction, 1900.	R.A. of centre.		Hour angle.		Exposures.		Observer.	Instrument.	Measurer.	No. of stars.	Ratio to Schönfeld.	No. in A.G.C.
		h	m	h	m	m	m						
486	15·115	9	8	0	46 E.	15	8	F.	3	A.	251	2·4	24
468	15·107		16	0	44 E.	15	8	B.	4	M.	303	3·1	34
409	14·975		24	0	15 E.	15	8	S.	4	M.	305	3·0	38
479	15·112		32	0	24 E.	15	8	A.	4	M.	251	2·8	24
487	15·115		40	0	42 E.	15	8	N.	1	R.	216	2·4	29
457	15·101		48	0	54 E.	15	8	S.	4	M.	339	4·1	32
469	15·107	9	56	0	46 E.	15	8	S.	1	S.	311	3·9	23
475	15·110	10	4	0	37 W.	15	8	R.	4	M.	181	2·4	25
480	15·112		12	0	18 E.	15	8	A.	1	S.	216	2·9	20
523	15·205		20	0	45 E.	15	8	F.	4	M.	183	2·2	30
517	15·189		28	0	19 E.	15	8	S.	1	S.	194	2·8	22
491	15·120		36	0	2 W.	15	8	N.	3	A.	142	2·3	26
603	16·164		44	1	6 E.	15	8	S.	3	A.	275	4·6	24
496	15·123	10	52	0	51 E.	15	8	M.	3	N.	184	3·0	26
608	16·167	11	0	0	7 E.	15	8	A.	4	M.	397	6·2	16
604	16·164		8	0	47 E.	15	8	R.	1	R.	321	4·4	20
524	15·205		16	0	43 E.	15	8	A.	3	N.	166	2·5	20
512	15·137		24	0	25 E.	15	8	F.	3	A.	150	2·0	26
497	15·123		32	0	49 E.	15	8	M.	3	N.	175	2·5	21
525	15·205		40	0	6 E.	15	8	A.	1	R.	168	2·1	29
605	16·164		48	0	36 E.	15	8	S.	3	N.	312	4·1	28
518	15·189	11	56	1	3 E.	15	8	A.	3	A.	182	2·6	23
609	16·167	12	4	0	34 E.	15	8	M.	3	N.	215	3·2	24
498	15·123		12	0	51 E.	15	8	M.	1	S.	175	2·8	15
513	15·137		20	0	36 E.	15	8	F.	4	M.	165	2·3	27
499	15·123		28	0	4 W.	15	8	A.	1	S.	171	2·6	28
610	16·167		36	0	22 E.	15	8	A.	3	A.	320	4·6	25
519	15·189		44	1	0 E.	15	8	A.	1	R.	205	3·2	23
505	15·129	12	52	0	46 E.	15	8	S.	4	M.	130	1·9	29
514	15·137	13	0	0	31 E.	15	8	F.	3	A.	128	2·1	26
520	15·189		8	0	48 E.	15	8	S.	3	N.	152	2·1	18
521	15·189		16	0	20 E.	15	8	S.	3	N.	167	2·3	31
611	16·167		24	0	19 E.	15	8	M.	2	M.A.	240	2·8	19
628	16·178		32	0	32 E.	15	8	M.	1	S.	356	5·5	21
635	16·183		40	1	6 E.	15	8	H.	1	R.	374	5·6	29
622	16·175		48	1	7 E.	15	8	N.	4	M.	355	5·9	22
623	16·175	13	56	0	33 E.	15	8	S.	3	A.	466	6·5	24
636	16·183	14	4	0	34 E.	15	8	N.	3	N.	471	6·3	19
642	16·186		12	1	46 E.	15	8	A.	2	M.A.	308	4·6	22
617	16·172		20	0	37 E.	15	8	R.	4	M.	459	6·8	16
643	16·186		28	1	29 E.	15	8	M.	1	S.	310	4·6	22
666	16·257		36	1	29 E.	12	6	H.	3	A.	403	4·5	27
629	16·178		44	1	1 E.	15	8	A.	3	A.	426	5·7	35
637	16·183	14	52	0	54 E.	15	8	H.	1	R.	416	5·6	24
657	16·241	15	0	0	33 E.	12	6	M.	4	M.	366	5·3	24
667	16·257		8	1	26 E.	12	6	N.	3	N.	387	4·8	23
668	16·271		16	0	54 E.	12	6	A.	3	A.	426	5·5	18
638	16·183		24	0	44 E.	15	8	N.	3	N.	480	5·4	22
646	16·186		32	1	0 E.	15	8	A.	4	M.	503	6·4	22
669	16·271		40	0	46 E.	12	6	S.	3	N.	504	7·1	17
639	16·183		48	0	25 E.	15	8	H.	3	A.	368	5·7	23
670	16·271	15	56	0	36 E.	12	6	A.	4	M.	356	5·6	18
671	16·271	16	4	0	14 E.	12	6	S.	1	S.	439	5·5	21
677	16·274		12	0	46 E.	12	6	R.	1	R.	428	5·1	16
672	16·271		20	0	2 W.	12	6	A.	1	R.	302	4·9	14
662	16·246	16	28	0	40 E.	12	6	R.	1	R.	260	4·6	14



*List of Plates in Zone —17° (continued).*

No. of plate.	Year and fraction, 1900.	R.A. of centre.		Hour angle.		Exposures.		Observer.	Instrument.	Measurer.	No. of stars.	Ratio to Schönfeld.	No. in A.G.C.
		h	m	h	m	m	m						
663	16.246	16	36	0	15 E.	12	6	N.	3	A.	233	3.6	18
682	16.276		44	0	53 E.	12	6	M.	4	M.	148	3.0	19
678	16.274	16	52	0	36 E.	12	6	H.	2	M.A.	232	2.9	17
679	16.274	17	0	0	9 E.	12	6	R.	1	S.	466	5.2	28
702	16.323		8	0	43 E.	12	6	H.	1	S.	478	5.2	32
703	16.323		16	0	34 E.	12	6	N.	3	A.	783	7.9	31
684	16.276		24	0	27 E.	12	6	M.	4	M.	658	6.4	30
696	16.320		32	0	59 E.	12	6	S.	1	R.	756	7.7	31
697	16.320		40	0	39 E.	12	6	A.	4	M.	606	7.0	30
685	16.276		48	0	18 E.	12	6	M.	3	A.	670	7.0	27
563	15.506	17	56	1	47 E.	20	10	B.	1	R.	310	3.1	25
566	15.512	18	4	0	27 W.	20	10	A.	1	R.	760	5.9	43
564	15.506		12	0	34 E.	20	10	F.	3	N.	834	4.4	47
578	15.589		20	0	26 W.	18	9	H.	3	N.	351	2.6	46
724	16.348		28	1	1 E.	12	6	S.	1	S.	1027	8.0	43
709	16.328		36	0	52 E.	12	6	M.	4	M.	308	2.4	31
710	16.328		44	0	16 E.	12	6	M.	3	A.	643	5.0	35
582	15.611	18	52	0	38 E.	18	9	N.	3	N.	393	2.8	39
725	16.348	19	0	1	4 E.	12	6	A.	4	M.	1042	6.2	42
568	15.515		8	1	16 E.	20	10	N.	3	N.	606	3.3	53
738	16.496		16	0	7 E.	12	6	F.	3	N.	356	2.7	46
732	16.430		24	0	3 E.	12	6	F.	1	S.	815	7.2	38
579	15.589		32	0	16 W.	18	9	R.	3	A.	342	3.1	33
744	16.556		40	0	28 E.	12	6	M.	3	N.	604	6.9	25
751	16.663		48	0	0	12	6	N.	3	N.	255	2.9	18
569	15.515	19	56	1	8 E.	20	10	S.	1	R.	209	2.3	32
752	16.663	20	4	0	20 W.	12	6	N.	3	A.	246	2.6	22
733	16.430		12	0	20 E.	12	6	A.	4	M.	475	4.5	30
740	16.496		20	0	8 E.	12	6	F.	4	M.	308	3.0	24
734	16.430		28	0	8 E.	12	6	F.	3	A.	613	6.3	26
745	16.556		36	0	36 E.	12	6	M.	1	S.	541	6.0	27
570	15.515		44	1	6 E.	20	10	N.	4	M.	236	2.6	27
753	16.663	20	52	0	3 W.	12	6	N.	3	N.	404	3.8	31
735	16.430	21	0	0	12 E.	12	6	A.	2	M.A.	407	4.6	30
764	16.671		8	0	51 E.	12	6	M.	2	M.A.	252	3.4	22
746	16.556		16	0	20 W.	12	8	M.	4	M.	337	3.7	17
779	16.816		24	1	33 W.	12	6	M.	4	M.	234	3.0	14
571	15.515		32	1	3 E.	20	10	S.	1	S.	208	2.2	21
765	16.671		40	0	51 E.	12	6	M.	4	M.	215	3.1	15
780	16.816		48	1	50 W.	12	6	M.	1	S.	194	2.7	19
755	16.663	21	56	0	3 W.	12	6	N.	3	A.	251	3.0	20
782	16.868	22	4	0	11 W.	12	6	P.	1	R.	207	2.9	15
769	16.802		12	0	43 W.	12	6	F.	3	A.	184	2.5	21
783	16.868		20	0	29 W.	12	8	P.	4	M.	192	2.7	20
788	16.873		28	0	13 E.	12	6	A.	3	N.	270	4.7	17
756	16.663		36	0	5 E.	12	6	B.	3	A.	170	2.7	18
796	16.876		44	0	59 W.	12	10	H.	3	A.	253	4.0	25
789	16.873	22	52	0	1 E.	12	6	A.	4	M.	266	4.4	24
800	16.879	23	0	0	5 E.	12	6	R.	1	R.	193	2.4	12
757	16.663		8	0	6 E.	12	6	N.	1	R.	210	2.8	26
806	16.882		16	1	8 W.	12	6	S.	3	A.	158	2.1	15
801	16.879		24	0	1 E.	12	6	N.	1	S.	193	2.8	10
784	16.871		32	0	14 E.	12	6	A.	3	N.	161	2.3	13
807	16.882		40	1	20 W.	12	6	A.	3	A.	195	2.8	16
790	16.873		48	0	24 E.	12	6	A.	3	A.	247	4.7	19
785	16.871	23	56	0	10 W.	12	6	S.	1	S.	132	2.0	16



The total number of star images measured for the present volume is 63,436, giving an average of 352 stars per plate.

#### IV.—MEASUREMENT OF THE PHOTOGRAPHS.

The general method of measurement is exactly similar to that at Oxford and scarcely needs detailed description. The micrometers (of which there are four, all constructed by Messrs T. Cooke & Sons of York) only differ in unimportant details from those used at Oxford.

The plates are each measured twice in different positions, the plate being rotated through  $180^\circ$  between the two sets of measures. Each measure of a co-ordinate is the mental mean of readings of two réseau lines. When the measures in the reversed position of the plate are compared with the direct measures, the differences usually amount to only one or two units (the scale reads to  $3''$  and by estimation to  $0''.3$ ): if the difference exceeds four units (*i.e.*  $.004$  of a réseau interval) it is independently measured again, *always by a different person*. The same person who checks these discordant measures also examines all images measured only once, and remeasures them if they appear to be star images. The great majority of the plates in the present volume were checked by Mr F. B. Shroff; in the remaining cases various measurers did the checking, but in no case did a measurer check his own plate.

The printed co-ordinates are the means of the two measures made with the plate in different positions; where a third measure was made the mean of all three was taken, unless one of the early measures was clearly a mistake, in which case it was rejected. In taking means where there was a choice between two numbers the even number was always preferred, so that the numbers are sometimes raised and sometimes lowered. Since the personalities and probable errors are mostly small, a very large number of the differences are one unit, and the result is that a large number of the measures as printed terminate with even figures; careful watch has been kept over the measures, and there is little if any tendency to record even figures in preference to odd ones among the original measures.

#### V.—DETERMINATION OF PHOTOGRAPHIC MAGNITUDES.

At the same time that the stars are measured, an estimation is made of the diameter of the star image. The sum of the two estimates made in the two positions of the plate is given in the second column under the heading *d* in the Catalogue. The unit is thus  $0''.15$ , as at Greenwich.

It is doubtful if the Hyderabad estimates are as good as those made at other observatories, particularly in the case of the fainter stars. R. and S. had a fairly good scale for most of the work, but N. and A. at first used a very contracted scale



and were in the habit of classing all faint stars as 4 (8 in the sum) indiscriminately. M.'s scale lay between those of S. and R. and those of N. and A. Later N. and A. used practically two different scales, one for the bright stars and one for the faint stars, so that any reasonable formula which fitted the bright stars made the faint ones too faint. M.A., who only measured during the latter part of the work, was specially addicted to the use of two scales, all his estimates being over 20 or under 10, with scarcely any between these two.

To obtain completely satisfactory results it would probably be necessary to determine separate formulæ for each measurer; but for simplicity it has been thought better to adopt a formula similar to that used at Greenwich and Oxford, merely pointing out that the formula which suits the bright stars does not necessarily fit the faint ones, and that in the present volume there is a tendency in the case of many of the plates for the formula to make the faint stars too faint.

The adopted formula is therefore

$$m = a - b\sqrt{d},$$

where  $m$  is the required photo-magnitude and  $d$  the diameter in units of  $0''.15$ ;  $a$ ,  $b$  are certain constants.

In the case of the present volume several groups of plates were examined, and in every case a value of  $b$  near 1.09 seemed to fit well. This value has, therefore, been adopted for the whole volume. The constant  $a$  is determined for each plate as follows:—The magnitudes of the reference stars used for this volume are given in the Washington Catalogue on a scale very similar to the B.D. magnitude scale. The numbers of these reference stars of each magnitude were counted, and by means of these numbers the Washington scale was converted into a scale comparable with that of Chapman and Melotte. The detailed results will be found in *Astronomical Journal*, vol. xxix., No. 688. In this way, for example, it was found that 9.4 in Washington corresponded to 10.0 in Chapman and Melotte. These revised magnitudes were then substituted in the above formula, and  $a$  was determined for each star of the plate. The mean value of  $a$  thus determined for each plate was adopted. The photo-magnitudes, therefore, deduced from the present volume are on the Chapman and Melotte scale, and may be expected to be fainter on the whole than those of other catalogues (*e.g.* Oxford), which are on scales comparable with the B.D. scale.

Tables are given on pages 2 and 3 by which the measured diameters may be converted into magnitudes. One or two values of  $a$  which are either unusually large or unusually small, occurring in the present volume, are not included, but in such cases there is no difficulty in extrapolating from the tables.

An idea of the limiting magnitude to which any given plate reaches may be obtained as follows, if we assume that the ratio of faint stars to bright does



not differ much for different plates (an assumption which is known to be untrue, but which nevertheless serves to give an idea of the magnitude to which any given plate reaches).

In Section III. is given a table of particulars of the plates in the present volume, which includes amongst other things the ratio of the number of stars measured to the number in Schönfeld's map. Now, Schönfeld's limiting magnitude on the C. and M. Scale is 11.3, and we have the following relation between limiting magnitude and ratio to Schönfeld, viz. :—

Ratio to Schönfeld . . .	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Limiting magnitude (C. and M. Scale) . . .	11.3	12.1	12.6	13.0	13.2	13.5	13.7

According to this, all plates in this volume reach at least to the 12th magnitude. Some reach well below the 13th, and the average limiting magnitude is 12.94. In regions where the ratio of faint stars to bright is known to be below the average (called by Professor Turner "Obscured Regions"), the plates really reach a limiting magnitude beyond that indicated above; whereas in regions where there is an excess of faint stars ("Unobscured Regions"), they fail to reach the limit indicated above.

## VI.—MEASURES OF POSITION.

### PERSONALITY OF MEASURERS.

The personality is determined for each plate as the work proceeds, in the same manner as at Oxford. A full discussion of the method will be found in *Monthly Notices of the R.A.S.*, vol. lvii. p. 621, and it is only necessary here to tabulate the mean personality of each measurer.

With the exception of two plates measured early in the work, each measurer has adhered to one measuring instrument throughout; for the greater part of the work each measurer (except M.A., who always entered his own measures) has had another person to enter his measures for him. This, however, has not been found to cause any alteration in personality. From about 1915 August till 1916 March the measurers had no Hyderabad plates to measure and were largely occupied in measuring plates taken at Oxford—on reverting to Hyderabad plates there was some evidence of change in the personality of some measurers (notably R.), and the personality has accordingly been tabulated for two groups of plates, those with numbers under 600, measured in 1915 (a few in 1914 December), and those with numbers over 600, measured in 1916. In most cases it will be seen that this separation into two groups does not affect the personality, and thus affords satisfactory evidence of the constancy of the personality over long periods of time.



*Personality determined from Plates in Zone  $-17^{\circ}$ .*

Measurer.	R—D, 1915.		No. of plates.	R—D, 1916.		No. of plates.	Total No. of plates.
	x.	y.		x.	y.		
M. . . . .	+ 7	+1	19	+7	+2	23	42
N. . . . .	—10	+8	18	—2	+8	16	34
R. . . . .	— 5	+6	16	—5	—3	14	30
A. . . . .	— 4	—2	16	—1	—2	22	38
S. . . . .	— 5	0	14	—8	—2	13	27
M.A. . . . .	..	..	..	+7	+6	9	9

The discordances R—D are tabulated above in units of  $0''.03$ , and are double the “error of bisection.”

## PROBABLE ERROR OF THE MEASURES.

Two determinations of the probable error have been made, similar to those detailed in the Introduction to the Oxford Astrographic Catalogue, vol. i. pp. xxxi—xxxiii. In the first case the probable error of bisection is found from the discordances between the measures in the direct and reversed positions of the plate, as described in the paper already referred to in *Monthly Notices of the R.A.S.* Separate determinations were made for two groups of plates for each measurer, one group measured early in 1915, and the second measured late in 1916, to see what improvement, if any, had occurred in the course of the work. It will be seen that in every case, except one, there is a distinct improvement.

## PROBABLE ERROR OF A SINGLE BISECTION.

Measurer.	1915.		1916.	
	x.	y.	x.	y.
M. . . . .	$\pm 0.20$	$\pm 0.18$	$\pm 0.20$	$\pm 0.15$
N. . . . .	$\pm 0.22$	$\pm 0.22$	$\pm 0.15$	$\pm 0.18$
R. . . . .	$\pm 0.22$	$\pm 0.23$	$\pm 0.18$	$\pm 0.22$
A. . . . .	$\pm 0.18$	$\pm 0.20$	$\pm 0.14$	$\pm 0.15$
S. . . . .	$\pm 0.23$	$\pm 0.25$	$\pm 0.29$	$\pm 0.25$
M.A. . . . .	..	..	$\pm 0.23$	$\pm 0.25$
Mean . . . . .	$\pm 0.21$	$\pm 0.22$	$\pm 0.20$	$\pm 0.20$
P.E. of mean of two measures . . . . .	$\pm 0.15$	$\pm 0.16$	$\pm 0.14$	$\pm 0.14$

Since M.A.'s measures in 1916 were the earliest he made, they should rightly be classed with the 1915 measures in determining the improvement made as the measurers gained experience; in this case the improvement would be still more marked.



The second determination of the probable error aims at determining the probable error of the final star place, including the effect of errors in the reference stars. The only means of doing this at Hyderabad is to compare the reference stars on overlapping plates. Such stars are confined to a few near the extreme edges of the plate which occur on two plates only, in each case. In this case the constants for the two adjacent plates are determined from practically two different sets of stars, and the epochs are so close that there is no proper motion between the two; but we are liable to get too large a probable error, because, the stars being near the edges of the plate, the measures are probably much below the average in reliability.

From seventy-six stars giving 152 residuals in the region  $4^h$  to  $6^h$ , where the number of reference stars is neither very great nor very small, we obtain as the probable error of the final star place,

$$\text{in } x, \pm 0''.47, \quad \text{in } y, \pm 0''.32, \quad \text{mean, } \pm 0''.40.$$

As already stated, this is probably a superior limit; the great inferiority of the  $x$  results is notable. We may take, therefore, as the probable error of a co-ordinate as finally determined with the provisional constants the figure  $\pm 0''.40$  as being certainly not too low.

#### ERRORS OF RÉSEAUX.

As stated above, two different réseaux were used for this zone; a rough investigation was made of the errors of the Hyderabad réseau before it was brought into use, sufficient to show that there were no errors which might not be treated as small accidental errors beyond the error of inclination of the lines to one another, which is automatically corrected in the plate constants.

The Oxford réseau used for the later plates has the line  $y=3$  displaced by approximately 0.0158 réseau intervals.

The displaced line is sensibly parallel to its true position, and if, therefore, the focal length of the measuring microscope is altered for the two lines concerned so as to fit the réseau, a simple scale value correction can be applied to eliminate the error. Since the scale for these two lines is different in the two co-ordinates, the  $x$  and  $y$  measures cannot be made simultaneously, but after the  $x$  measures have been made, the measurer alters the setting of his instrument and measures the other co-ordinate. This is done in both positions of the plate, and the correction applied to the final mean. The correction for stars for which  $3 > y > 2$  is  $-.0158 (y-2)$ , and for stars for which  $4 > y > 3$  it is  $-.0158 (4-y)$ , and is easily applied by means of a small table; thus, when  $y$  lies between 2.601 and 2.665, subtract 0.010, and when  $y$  lies between 3.601 and 3.665, subtract 0.006. This sometimes has the effect of bringing a star measured in line 3 into line 2; in such cases the star is always inserted



in line 2 in the copy for press, so that in the Catalogue it occupies the same place as if the réseau were correct.

The other errors of this réseau have been treated as small accidental errors.

It has also been assumed that the division errors of the scales in the measuring instruments were negligible.

## VII.—PLATE CONSTANTS.

The plate constants were determined by the method and formulæ given in *Monthly Notices of the R.A.S.*, liv., p. 11. The rigorous formulæ were, however, replaced by approximate formulæ more convenient in practice (see below).

The positions of the reference stars for the present volume were all taken from the Washington Astronomische Gesellschaft Catalogue, in which the positions are given for 1900·0, the epoch of the Astrographic Catalogue. After the constants have been determined they are used to correct the Hyderabad places for comparison with Washington, the residuals so obtained being entered in ledgers. Except in the case of known proper motion stars, the residuals are usually small; about 80 per cent. are under one second of arc, and scarcely any exceed three seconds of arc. Up to the present only one actual error has been detected in the Washington Catalogue.

The method of computing the provisional constants is fully explained in the Introduction to the Oxford Astrographic Catalogue, vol. i. pp. xxxvii *et seq.*; but for convenience of reference it is described briefly below.

The Washington places were first converted into standard co-ordinates by the methods explained in the next section. A catalogue of these standard co-ordinates follows the photographic catalogue (see p. 193). An approximate solution was then formed, generally from four stars only. The scale value was always taken as —·01750 or —·02500 (for the application of the former a table was constructed; the latter is easily worked mentally), and the other constants were chosen to be convenient numbers to work with.

Now if  $\xi$ ,  $\eta$  represent standard co-ordinates referred to the plate centre as origin,  $\alpha$ ,  $\delta$ , R.A. and Declination,  $A$ ,  $D$ , the R.A. and Declination of the plate centre, we have

$$\begin{aligned}\xi &= k \tan (\alpha - A) \sec (\theta - D) \cos \theta, \\ \eta &= k \tan (\theta - D), \\ \tan \theta &= \sec (\alpha - A) \tan \delta, \\ k &= 687\cdot549 \text{ (reciprocal of circular measure of } 5').\end{aligned}$$

Then if  $\xi' = \xi + 13$ ,  $\eta' = \eta + 13$ ;  $\xi'$ ,  $\eta'$  represent standard co-ordinates referred to the corner of the réseau, and if  $\Delta\xi'$ ,  $\Delta\eta'$  represent the correction calculated by means of the approximate solution,

$$x' = \xi' + \Delta\xi', \quad y' = \eta' + \Delta\eta'.$$



If  $x, y$  represent the original measures, we can form the differences  $x-x', y-y'$  and find the mean values of  $x, x-x', y, y-y'$  for the four quarters of the plate. We thus get four pairs of equations of the type

$$ax+by+c=x-x', \quad dx+ey+f=y-y',$$

from which the six constants  $a, b \dots$  can be computed.

Now, if the constants of the approximate solution are represented by  $A', B', \dots$  and those of the final solution by  $A, B, \dots$  we have the pairs of equations

$$\begin{aligned} x' &= \xi' + A'\xi' + B'\eta' + C', & y' &= \eta' + D'\xi' + E'\eta' + F', \\ x &= x' + ax + by + c, & y &= y' + dx + ey + f, \\ \xi' &= x - Ax - By - C, & \eta' &= y - Dx - Ey - F, \end{aligned}$$

and  $A, B, C \dots$  are connected with  $A', B', \dots a, b \dots$  by the relations

$$\begin{aligned} A &= A' + a - A'(A' + a) - B'(D' + d), \\ B &= B' + b - A'(B' + b) - B'(E' + e), \\ C &= C' + c - A'(C' + c) - B'(F' + f), \\ D &= D' + d - E'(D' + d) - D'(A' + a), \\ E &= E' + e - E'(E' + e) - D'(B' + b), \\ F &= F' + f - E'(F' + f) - D'(C' + c). \end{aligned}$$

The corrections to the sums  $A' + a$ , etc., are small, and are very easily applied: in practice we always have  $A' = E'$  and  $B' = -D'$ .

Finally, we have the equations

$$\xi = x - 13 - Ax - By - C, \quad \eta = y - 13 - Dx - Ey - F,$$

connecting the standard co-ordinates with the measures by means of the provisional constants.

In forming the equations for each plate, stars known to have large proper motions, and other stars showing abnormal residuals, were omitted from the solution; in only a very few cases where reliable results were obtainable was a proper motion applied and the star used in the solution.

Theoretically we should have  $A - E =$  a small positive quantity, due to refraction (see below), and  $B + D = 0$ , or, in the case of plates with numbers less than 600, a small positive quantity; where  $A - E, B + D$ , are negative or large positive quantities, it generally happens that the reference stars are not evenly distributed over the plate, though it is not possible in this way to account for all the abnormal results.

Accurate formulæ for the effects of differential refraction are given in *Monthly Notices of the R.A.S.*, lvii. p. 135.

If  $\beta_0$  is the coefficient of refraction,  $X, Y$  are the co-ordinates of the zenith supposed projected on the plate, and  $X, Y, x, y$  are measured in terms of the focal length of the telescope as unit, the corrections to be applied to  $x, y$  are, omitting terms beyond the first order, which can have no effect on plates in this volume,

$$\Delta x = \beta_0(1 + X^2)x + \beta_0XYy; \quad \Delta y = \beta_0XYx + \beta_0(1 + Y^2)y.$$



These corrections are tabulated below for plates taken within three hours of the meridian.

*Zone  $-17^\circ$ .—Correction for Refraction in Units of  $\cdot 000001$ .*

Hour angle.		$\beta_0(1+X^2)$	$\beta_0XY$	$\beta_0(1+Y^2)$	Hour angle.		$\beta_0(1+X^2)$	$\beta_0XY$	$\beta_0(1+Y^2)$
h	m				h	m			
0	0	283	0	416	1	36	359	107	432
	8	284	8	416		44	375	119	436
	16	285	16	416	1	52	393	131	439
	24	287	24	417	2	0	413	145	443
	32	291	32	418		8	437	159	447
	48	300	48	420		24	493	192	458
0	56	307	57	421		32	528	211	465
1	4	314	66	423		40	568	232	472
	12	323	76	425		48	614	256	481
	20	334	85	427	2	56	667	282	491
1	28	346	96	429	3	4	730	313	502

The corrections at  $2^h 0^m$  are

$$\begin{aligned}\Delta x &= +\cdot 000413x \mp \cdot 000145y, \\ \Delta y &= \mp \cdot 000145x + \cdot 000443y,\end{aligned}$$

taking the upper sign for plates taken in east hour angles.

The corrections for differential aberration are—

$$\begin{aligned}\Delta x &= +K \cos CW \cdot x, \\ \Delta y &= +K \cos CW \cdot y,\end{aligned}$$

where C is the plate centre and W is the point to which the Earth tends. We have

$$K \cos CW = 0\cdot 000100 \{-0\cdot 40 \sin D \cos \odot - 0\cdot 96 \cos D \sin (A - \odot)\},$$

where  $\odot$  is the sun's longitude; omitting a term  $0\cdot 000004 \cos D \sin (A + \odot)$ .

For the present volume  $D = -17^\circ$ , and we have therefore

$$K \cos CW = +0\cdot 000012 \cos \odot - 0\cdot 000092 \sin (A - \odot).$$

It will make very little difference if we substitute the sun's R.A. for longitude; and then for a plate taken on the meridian at midnight  $A - \odot = 180^\circ$ , and the second term vanishes. For plates taken on the meridian at other times, the second term has the following values in units of the sixth decimal place:—

6 <sup>h</sup> .	7 <sup>h</sup> .	8 <sup>h</sup> .	9 <sup>h</sup> .	10 <sup>h</sup> .	11 <sup>h</sup> .	12 <sup>h</sup> .	13 <sup>h</sup> .	14 <sup>h</sup> .	15 <sup>h</sup> .	16 <sup>h</sup> .	17 <sup>h</sup> .	18 <sup>h</sup> .
-92	-82	-79	-65	-46	-24	0	+24	+46	+65	+79	+89	+92

The first term has the following values at the middle of each month in units of the sixth decimal place:—

Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
+5	+10	+12	+11	+7	+1	-5	-9	-12	-11	-7	-1



Thus the measures made on a plate taken on the meridian at 17 hours in September require the corrections  $+0.000077x$ ,  $+0.000077y$  for aberration.

# VIII.—DETERMINATION OF A STAR'S STANDARD CO-ORDINATES FROM ITS RIGHT ASCENSION AND DECLINATION: AND OF ITS R.A. AND DECLINATION FROM ITS MEASURED CO-ORDINATES.

By means of the provisional constants given at the head of each plate, the standard co-ordinates of a star are obtained by the formulæ

$$\begin{aligned}\xi &= x - 13 - Ax - By - C, \\ \eta &= y - 13 - Dx - Ey - F.\end{aligned}$$

The term "standard co-ordinates" is now generally adopted to denote the co-ordinates of a star on a plate which fulfils the following conditions:—

- (i.) The plate truly centred and oriented for 1900.0.
- (ii.) No refraction and aberration.
- (iii.) A suitable unit of length adopted.

If (A, D) are R.A. and Declination of the plate centre, and ( $\alpha$ ,  $\delta$ ) those of a star, we have

$$\begin{aligned}\xi &= k \tan (\alpha - A) \sec (\theta - D) \cos \theta, \\ \eta &= k \tan (\theta - D), \\ \tan \theta &= \sec (\alpha - A) \tan \delta \text{ and } k = 687.549.\end{aligned}$$

In zones not too near the pole, we may transform these into approximate formulæ as follows:—

Let

$$\begin{aligned}X &= \alpha - A \text{ in units of } 20''., \\ Y &= \delta - D \text{ in units of } 300''.\end{aligned}$$

Then, with sufficient accuracy in zone  $-17^\circ$ , we have

$$\eta = Y + \left(\frac{1}{4} \mu \sin 2D\right) \cdot X^2 + \frac{1}{8} \mu^2 (2Y^3 + 3X^2 \cdot Y \cos 2D).$$

where

$$\mu = 1/k = .00145444.$$

The value of the term  $\frac{1}{4} \mu \sin 2D \cdot X^2$  is given in Table I. for  $D = -17^\circ$  and for different values of X (since the formulæ are the same for equal declinations N. and S. of the equator, D is to have its numerical value, the minus sign being ignored in these formulæ).

The small term  $\frac{1}{8} \mu (2Y^3 + 3X^2 \cdot Y \cdot \cos 2D)$  is given in Table II.

Hence we have

$$\begin{aligned}\eta &= Y + \text{Table I.} + \text{Table II.}, \\ Y &= \eta - \text{Table I.} - \text{Table II.}\end{aligned}$$

When X is known, therefore, we can obtain  $\eta$  from Y or Y from  $\eta$ .



To get  $\xi$  from  $X$  or  $X$  from  $\xi$ , tables have been prepared in the present volume for two alternative methods, one with and one without logarithms.

(i.) With logarithms—we have

$$\begin{aligned} \xi &= \tan(a-A) \cdot \{\sin D \cdot (k \cot D - \eta) \} \quad \dots \quad (1) \\ \text{or} \quad \xi &= X(1 + \frac{1}{3}\mu^2 \cdot X^2) \{\mu \cos D \cdot \tan D_0 (k \cot D_0 - \eta)\} \quad \dots \quad (2) \end{aligned}$$

Consider (1). We have for  $D=17^\circ$

$$\log \{\sin D \cdot (k \cot D - \eta)\} = \log \sin 17^\circ + \log (2248.87 - \eta).$$

Now if for  $\log (2248.87 - \eta)$  we write  $\log (2248.90 - \eta)$ , we can read the values of this term for  $\eta=0.0, 0.1$ , etc., from the tables without interpolation: let  $D_0$  represent the corresponding value of  $D$ , and we have

$$\sin D (k \cot D - \eta) = \sin D \cdot \frac{k \cot D - \eta}{k \cot D_0 - \eta} (k \cot D_0 - \eta),$$

in the fractional term of which we may give  $\eta$  its mean value, zero, to a very close approximation, hence we get (2).

Table V. gives the values of  $\log (1 + \frac{1}{3}\mu^2 \cdot X^2)$ .

Table III. gives the values of  $[\text{const.} + \log \{\mu \cos D \cdot \tan D_0 (k \cot D_0 - \eta)\}]$  for multiples of 0.1, and Table IV. gives the corrections for the fractional part of  $\eta$  beyond the first decimal place. Thus we have

$$\log \xi = \log X + \text{Table III.} + \text{Table IV.} + \text{Table V.}$$

(ii.) Without logarithms.—When  $X$  is constant we have  $\xi = M - N \cdot \eta$ , so that differences in  $\eta$  are constant. When  $\eta$  is constant we have  $\xi = MX (1 + \frac{1}{3}\mu^2 \cdot X^2)$ , so that the differences are not quite uniform; but if we have a sufficiently extended table for  $X$  we can safely interpolate. This calculation is provided for in Tables IX. and X., in which it is to be noted the above formula has been transformed from  $(X, \eta)$  to  $(X, Y)$ .

As an example take the star Washington 18, whose standard co-ordinates are given on p. 195.

		R.A.	Declination.
Washington 18 . . . . .		0 <sup>h</sup> 4 <sup>m</sup> 25 <sup>s</sup> .24	−17° 51' 6".8 (1900)
		X = +1.2620	Y = +10.2226
Y	= +10.2226		log X = 10.101059
Table I.	= + 3		Table III. = 9.978602
Table II.	= + 7		Table IV. = 14
			Table V. = 1
$\eta = \text{sum}$	+ 10.2236		
$\eta = 13 + \eta$	23.2236		log $\xi = \text{sum}$ = 0.079676
			$\xi = +1.2014$
			$\xi' = 13 + \xi = 14.2014$



By the second method we refer to Table X., since Y is positive, which is headed  $\xi = X - \frac{1}{30} X - \frac{1}{100} X$ —following table, hence we have

$$\begin{array}{rcl} & X = +1.2620 \\ - \frac{1}{30} & X = -0.0421 \\ - \frac{1}{100} & X = -0.0126 \\ - \text{Table X.} & = -0.0059 \\ \hline & \xi = +1.2014 \end{array}$$

To obtain R.A. and Declination from the measures. First form the standard co-ordinates by means of the formulæ

$$\begin{aligned} \xi &= x - 13 - Ax - By - C, \\ \eta &= y - 13 - Dx - Ey - F. \end{aligned}$$

Then by the first method we have

$$\log X = \log \xi + \text{Table VI.} + \text{Table VII.} + \text{Table VIII.},$$

where Tables VI., VII., VIII. correspond to Tables V., III., IV., respectively, and are to be similarly used.

With the value of X so obtained we can form  $\eta$ —Table I., and so obtain a sufficiently approximate value of Y to enter Table II.

As an example take the same star as before, viz. Hyderabad 218, on the first plate in the present volume.

$\begin{array}{rcl} x & = & 14.174 \\ -Ax & = + & 366 \\ -By & = - & 79 \\ -C & = - & 263 \\ \hline \xi' & = & 14.198 \\ \xi & = + & 1.198 \\ \log \xi & = & 0.078457 \\ \text{Table VI.} & = & 57 \\ \text{Table VII.} & = & 0.021303 \\ \text{Table VIII.} & = & 23 \\ \hline \text{sum} & = & 0.099840 \\ X & = & 1.2585 \\ & = & 0^m 25^s.17 \end{array}$	$\begin{array}{rcl} y & = & 22.426 \\ -Dx & = + & 46 \\ -Ey & = + & 580 \\ -F & = + & 168 \\ \hline \eta' & = & 23.220 \\ \eta & = + & 10.220 \\ \text{Table I.} & = - & 0.0003 \\ \text{Table II.} & = - & 0.0007 \\ \hline Y & = + & 10.219 \\ & = & 51' 5''.7. \end{array}$
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∴ The R.A. and Declination for 1900.0 are—

$$0^h 4^m 25^s.17 \qquad -17^\circ 51' 5''.7.$$

The small differences between these values and those given above are the differences between the Hyderabad photographic place and the Washington meridian place, and are the sum of—



- (1) Accidental or systematic errors in the meridian place.
- (2) Accidental or systematic errors in the photographic place, including the effect of (1) on the provisional constants.
- (3) Proper motion between the epochs of the two catalogues.

It is to be noted that the computation from  $(x, y)$  to  $(\xi', \eta')$  above is made to only three places. With the large scale value which has been inevitable with the Hyderabad plates it would require a little care to go to the fourth place accurately, and since the measures are only made to three places, the extra labour is scarcely justified, and will seldom make a difference of as much as one unit in the third place.

By the second method the computation for  $X$  is as follows :—

At the head of Table XII. we find  $X = \xi + \frac{1}{40} \cdot \xi + \frac{1}{50} \cdot \xi +$  following table.

	$\xi = +1.1980$
$\frac{1}{40} \xi = +$	$.0300$
$\frac{1}{50} \xi = +$	$.0240$
Table XII. = +	66
<hr/>	
$X =$	$1.2586$

Small differences of one or two units in the fourth place, when different methods are used, are unavoidable, and may be neglected.

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# HYDERABAD ASTROGRAPHIC CATALOGUE

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## T A B L E S

FOR THE CONVERSION OF

R.A. AND DEC. INTO STANDARD CO-ORDINATES

AND OF

STANDARD CO-ORDINATES INTO R.A. AND DEC.

FOR PLATES WITH CENTRES IN

DEC.  $-17^{\circ}$

---

BOTH WITH AND WITHOUT LOGARITHMS



STANDARD ASTROGRAPHIC CAMERA

T. A. B. L. S.

FOR THE CONVERSION OF

W. A. AND DEC. INTO STANDARD CO-ORDINATES

AND DEC.

STANDARD CO-ORDINATES INTO W. A. AND DEC.

FOR PLATES WITH SCALING IN

DEC. 17

BOTH WITH AND WITHOUT LOGARITHMS



TABLE I.—For  $D = -17^\circ$ .

$$\Delta_1 Y = \frac{\mu}{4} \sin 2D, X^2 = .0002033 X^2.$$

Always additive to  $Y$  to get  $\eta$ . Always subtractive from  $\eta$  to get  $Y$ .

$\Delta_2 Y$  is given in Table II.

X.	$\Delta_1 Y$ .	X.	$\Delta_1 Y$ .	X.	$\Delta_1 Y$ .	X.	$\Delta_1 Y$ .
0.0-0.4	.0000	4.0	.0033	7.7	.0121	11.4	.0264
0.5	.0001	4.1	.0034	7.8	.0124	11.5	.0269
0.6	.0001	4.2	.0036	7.9	.0127	11.6	.0274
0.7	.0001	4.3	.0038	8.0	.0130	11.7	.0278
0.8	.0001	4.4	.0039	8.1	.0134	11.8	.0283
0.9	.0002	4.5	.0041	8.2	.0137	11.9	.0288
1.0	.0002	4.6	.0043	8.3	.0140	12.0	.0293
1.1	.0003	4.7	.0045	8.4	.0144	12.1	.0298
1.2	.0003	4.8	.0047	8.5	.0147	12.2	.0303
1.3	.0003	4.9	.0049	8.6	.0150	12.3	.0308
1.4	.0004	5.0	.0051	8.7	.0154	12.4	.0313
1.5	.0005	5.1	.0053	8.8	.0158	12.5	.0318
1.6	.0005	5.2	.0055	8.9	.0161	12.6	.0323
1.7	.0006	5.3	.0057	9.0	.0164	12.7	.0328
1.8	.0007	5.4	.0059	9.1	.0168	12.8	.0333
1.9	.0007	5.5	.0062	9.2	.0172	12.9	.0338
2.0	.0008	5.6	.0064	9.3	.0176	13.0	.0344
2.1	.0009	5.7	.0066	9.4	.0180	13.1	.0349
2.2	.0010	5.8	.0068	9.5	.0184	13.2	.0354
2.3	.0011	5.9	.0071	9.6	.0187	13.3	.0360
2.4	.0012	6.0	.0073	9.7	.0191	13.4	.0365
2.5	.0013	6.1	.0076	9.8	.0195	13.5	.0371
2.6	.0014	6.2	.0078	9.9	.0199	13.6	.0376
2.7	.0015	6.3	.0081	10.0	.0203	13.7	.0382
2.8	.0016	6.4	.0083	10.1	.0207	13.8	.0387
2.9	.0017	6.5	.0086	10.2	.0212	13.9	.0393
3.0	.0018	6.6	.0089	10.3	.0216	14.0	.0399
3.1	.0020	6.7	.0091	10.4	.0220	14.1	.0404
3.2	.0021	6.8	.0094	10.5	.0224	14.2	.0410
3.3	.0022	6.9	.0097	10.6	.0228	14.3	.0416
3.4	.0024	7.0	.0100	10.7	.0232	14.4	.0422
3.5	.0025	7.1	.0103	10.8	.0237	14.5	.0428
3.6	.0026	7.2	.0105	10.9	.0242	14.6	.0434
3.7	.0028	7.3	.0108	11.0	.0246	14.7	.0439
3.8	.0029	7.4	.0111	11.1	.0251	14.8	.0445
3.9	.0031	7.5	.0114	11.2	.0255	14.9	.0451
		7.6	.0117	11.3	.0260	15.0	.0458



TABLE II.—For  $D = -17^\circ$ .

$$\Delta_2 Y = \frac{1}{6} \mu^2 (2Y^3 + 3X^2 Y \cos 2D) = 0.000000705 Y^3 + 0.000000877 X^2 Y.$$

Additive to Y with same sign as Y to get  $\eta$ . Additive to  $\eta$  with opposite sign to  $\eta$  to get Y.

Y. or $\eta$ .	X.	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	10.5.	11.	11.5.	12.	12.5.	13.	13.5.	14.	14.5.	X. Y. or $\eta$ .
R.I.		Unit=0.0001 of a Reseau Interval.																				R.I.
0.5		0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0.5
1.0		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	1.0
1.5		0	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2	2	3	3	1.5
2.0		0	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	3	4	2.0
2.5		0	0	0	0	0	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	2.5
3.0		0	0	0	0	1	1	1	1	2	2	3	3	3	4	4	4	5	5	5	6	3.0
3.5		0	0	0	1	1	1	1	2	2	3	3	4	4	4	5	5	5	6	6	7	3.5
4.0		0	0	1	1	1	1	2	2	3	3	4	4	5	5	5	6	6	7	7	8	4.0
4.5		1	1	1	1	1	2	2	3	3	4	5	5	5	6	6	7	7	8	8	9	4.5
5.0		1	1	1	1	2	2	2	3	4	4	5	6	6	7	7	8	8	9	9	10	5.0
5.5		1	1	1	2	2	2	3	4	4	5	6	6	7	7	8	9	9	10	11	11	5.5
6.0		2	2	2	2	2	3	3	4	5	6	7	7	8	8	9	10	10	11	12	12	6.0
6.5		2	2	2	2	3	3	4	5	6	7	8	8	9	9	10	11	11	12	13	14	6.5
7.0		2	2	3	3	3	4	5	5	6	7	9	9	10	10	11	12	13	14	14	15	7.0
7.5		3	3	3	4	4	5	5	6	7	8	10	10	11	12	12	13	14	15	16	17	7.5
8.0		4	4	4	4	5	5	6	7	8	9	11	11	12	13	14	14	15	16	17	18	8.0
8.5		4	4	5	5	6	6	7	8	9	10	12	12	13	14	15	16	17	18	19	20	8.5
9.0		5	5	5	6	6	7	8	9	10	11	13	14	15	15	16	17	18	19	20	22	9.0
9.5		6	6	6	7	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	9.5
10.0		7	7	7	8	8	9	10	11	13	14	16	17	18	19	20	21	22	23	24	25	10.0
10.5		8	8	9	9	10	10	11	13	14	16	17	18	19	20	21	22	24	25	26	27	10.5
11.0		9	9	10	10	11	12	13	14	16	17	19	20	21	22	23	24	26	27	28	30	11.0
11.5		11	11	11	12	12	13	14	16	17	19	21	22	23	24	25	26	28	29	30	32	11.5
12.0		12	12	13	13	14	15	16	17	19	21	23	24	25	26	27	28	30	31	33	34	12.0
12.5		14	14	14	15	16	16	18	19	21	23	25	26	27	28	29	31	32	34	35	37	12.5
13.0		15	16	16	17	17	18	20	21	23	25	27	28	29	30	32	33	35	36	38	39	13.0







*All Zones.*For  $D = -17^\circ$ .

TABLE V.

$$\frac{1}{3} \mu^2 \log_{10} e \times X^2 = .000000306 X^2.$$

Add to log. X (with Tables III., IV.)  
to get log.  $\xi$ .

X.	.0.	.1.	.2.	.3.	.4.	.5.	.6.	.7.	.8.	.9.
1	0	0	0	1	1	1	1	1	1	1
2	1	1	1	2	2	2	2	2	2	3
3	3	3	3	3	4	4	4	4	4	5
4	5	5	5	6	6	6	6	7	7	7
5	8	8	8	9	9	9	10	10	10	11
6	11	11	12	12	13	13	13	14	14	15
7	15	15	16	16	17	17	18	18	19	19
8	20	20	21	21	22	22	23	23	24	24
9	25	25	26	26	27	28	28	29	29	30
10	31	31	32	32	33	34	34	35	36	36
11	37	38	38	39	40	40	41	42	43	43
12	44	45	46	46	47	48	49	49	50	51
13	52	53	53	54	55	56	57	57	58	59
14	60	61	62	63	63	64	65	66	67	68
15	69	70	71	72	73	73	74	75	76	77

Unit = .000001.

TABLE VI.

$$\text{Const.} - \frac{1}{3} \mu^2 \log_{10} e \cdot \sec^2 D \cdot \xi^2 \\ = .000057 - .000000335 \xi^2.$$

Add to log.  $\xi$  to get log. X.

$\xi$ .	.0.	.1.	.2.	.3.	.4.	.5.	.6.	.7.	.8.	.9.
0	57	57	57	57	57	57	57	57	57	57
1	57	57	57	56	56	56	56	56	56	56
2	56	56	55	55	55	55	55	55	54	54
3	54	54	54	53	53	53	53	52	52	52
4	52	51	51	51	51	50	50	50	49	49
5	49	48	48	48	47	47	46	46	46	45
6	45	45	44	44	43	43	42	42	42	41
7	41	40	40	39	39	38	38	37	37	36
8	36	35	34	34	33	33	32	32	31	30
9	30	29	29	28	27	27	26	25	25	24
10	23	23	22	21	21	20	19	19	18	17
11	16	16	15	14	13	13	12	11	10	10
12	9	8	7	6	5	5	4	3	2	1

Unit = .000001.







TABLE IX.—For D = - 17°.

Y Negative.

 $\xi = X - \frac{1}{30}X - \frac{1}{200}X$  - following table.

X. Y.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	X. Y.
- 13.0	.0002	.0003	.0005	.0007	.0009	.0011	.0014	.0016	.0019	.0022	.0026	.0030	.0034	.0039	.0045	- 13.0
12.9	.0001	.0002	.0004	.0005	.0007	.0008	.0011	.0013	.0015	.0018	.0021	.0025	.0029	.0033	.0038	12.9
8	.001	.002	.003	.004	.005	.006	.008	.010	.012	.014	.016	.020	.023	.027	.032	8
7	.000	.001	.001	.002	.003	.003	.005	.006	.008	.010	.012	.015	.018	.021	.026	7
6	.000	.000	.000	.000	.000	.001	.002	.003	.004	.005	.007	.010	.012	.015	.019	6
5	.000	.001	.001	.002	.002	.002	.001	.001	.000	.001	.002	.004	.007	.009	.013	5
4	.001	.002	.002	.003	.004	.004	.004	.004	.004	.003	.002	.001	.001	.004	.006	4
3	.001	.003	.004	.005	.006	.007	.007	.008	.008	.008	.007	.006	.004	.002	.000	3
2	.002	.003	.005	.007	.008	.009	.010	.011	.012	.012	.012	.011	.010	.008	.006	2
1	.002	.004	.006	.008	.010	.012	.013	.014	.015	.016	.016	.016	.015	.014	.013	1
- 12.0	.003	.005	.008	.010	.012	.014	.016	.018	.019	.020	.021	.021	.021	.020	.019	- 12.0
- 11.9	.0003	.0006	.0009	.0012	.0014	.0017	.0019	.0021	.0023	.0024	.0026	.0026	.0026	.0026	.0026	- 11.9
8	.004	.007	.010	.013	.016	.020	.022	.025	.027	.029	.030	.031	.032	.032	.032	8
7	.004	.008	.011	.015	.019	.022	.025	.028	.031	.033	.035	.036	.037	.038	.038	7
6	.004	.008	.013	.017	.021	.025	.028	.031	.034	.037	.040	.042	.043	.044	.045	6
5	.005	.009	.014	.018	.023	.027	.031	.035	.038	.042	.044	.047	.048	.050	.051	5
4	.005	.010	.015	.020	.025	.030	.034	.038	.042	.046	.049	.052	.054	.056	.058	4
3	.006	.011	.016	.022	.027	.032	.037	.042	.046	.050	.054	.057	.060	.062	.064	3
2	.006	.012	.018	.024	.029	.035	.040	.045	.050	.054	.058	.062	.065	.068	.070	2
1	.006	.013	.019	.025	.031	.037	.043	.048	.054	.058	.063	.067	.071	.074	.076	1
- 11.0	.007	.014	.020	.027	.034	.040	.046	.052	.057	.063	.068	.072	.076	.080	.083	- 11.0
- 10.9	.0007	.0014	.0022	.0029	.0036	.0042	.0049	.0055	.0061	.0067	.0072	.0077	.0082	.0086	.0089	- 10.9
8	.008	.015	.023	.030	.038	.045	.052	.059	.065	.071	.077	.082	.087	.092	.096	8
7	.008	.016	.024	.032	.040	.048	.055	.062	.069	.076	.082	.087	.093	.098	.102	7
6	.009	.017	.026	.034	.042	.050	.058	.065	.073	.080	.086	.092	.098	.104	.108	6
5	.009	.018	.027	.036	.044	.053	.061	.069	.076	.084	.091	.098	.104	.110	.115	5
4	.009	.019	.028	.037	.046	.055	.064	.072	.080	.088	.096	.103	.109	.116	.121	4
3	.010	.020	.029	.039	.048	.058	.067	.076	.084	.092	.100	.108	.115	.122	.128	3
2	.010	.020	.031	.041	.051	.060	.070	.079	.088	.097	.105	.113	.120	.128	.134	2
1	.011	.021	.032	.042	.053	.063	.073	.082	.092	.101	.110	.118	.126	.134	.140	1
- 10.0	.011	.022	.033	.044	.055	.066	.076	.086	.096	.105	.114	.123	.131	.139	.147	- 10.0
- 9.9	.0012	.0023	.0034	.0046	.0057	.0068	.0079	.0089	.0100	.0110	.0119	.0128	.0137	.0145	.0153	- 9.9
8	.012	.024	.036	.047	.059	.071	.082	.093	.103	.114	.124	.133	.142	.151	.160	8
7	.012	.025	.037	.049	.061	.073	.085	.096	.107	.118	.129	.138	.148	.157	.166	7
6	.013	.026	.038	.051	.063	.076	.088	.099	.111	.122	.133	.144	.154	.163	.172	6
5	.013	.026	.040	.052	.065	.078	.091	.103	.115	.126	.138	.149	.159	.169	.178	5
4	.014	.027	.041	.054	.068	.081	.094	.106	.119	.131	.143	.154	.165	.175	.185	4
3	.014	.028	.042	.056	.070	.083	.097	.110	.122	.135	.147	.159	.170	.181	.192	3
2	.014	.029	.043	.058	.072	.086	.100	.113	.126	.139	.152	.164	.176	.187	.198	2
1	.015	.030	.045	.059	.074	.088	.103	.116	.130	.144	.157	.169	.181	.193	.204	1
- 9.0	.015	.031	.046	.061	.076	.091	.106	.120	.134	.148	.161	.174	.187	.199	.210	- 9.0
- 8.9	.0016	.0032	.0047	.0063	.0078	.0094	.0108	.0123	.0138	.0152	.0166	.0179	.0192	.0205	.0217	- 8.9
8	.016	.032	.048	.064	.080	.096	.111	.127	.142	.156	.171	.184	.198	.211	.223	8
7	.017	.033	.050	.066	.082	.099	.114	.130	.146	.161	.175	.189	.203	.217	.230	7
6	.017	.034	.051	.068	.084	.101	.117	.133	.149	.165	.180	.194	.209	.223	.236	6
5	.018	.035	.052	.070	.087	.104	.120	.137	.153	.169	.185	.200	.214	.229	.242	5
4	.018	.036	.054	.071	.089	.106	.123	.140	.157	.173	.189	.205	.220	.235	.249	4
3	.018	.037	.055	.073	.091	.109	.126	.144	.161	.178	.194	.210	.225	.241	.255	3
2	.019	.037	.056	.075	.093	.111	.129	.147	.165	.182	.199	.215	.231	.247	.262	2
1	.019	.038	.057	.076	.095	.114	.132	.150	.168	.186	.203	.220	.236	.253	.268	1
- 8.0	.020	.039	.059	.078	.097	.116	.135	.154	.172	.190	.208	.225	.242	.259	.274	- 8.0

Note.—The Nos. in italics are negative.



TABLE IX. *continued.*—For  $D = -17^\circ$ .

Y Negative.

 $\xi = X - \frac{1}{30} X - \frac{1}{200} X$  — following table.

X. Y.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	X. Y.
— 7.9	0020	0040	0060	0080	0099	0119	0138	0157	0176	0195	0213	0230	0248	0264	0281	— 7.9
8	020	041	061	082	102	122	141	161	180	199	218	235	253	270	287	8
7	021	042	062	083	104	124	144	164	184	203	222	240	259	276	294	7
6	021	042	064	085	106	127	147	168	188	207	227	246	264	282	300	6
5	022	043	065	087	108	129	150	171	191	212	231	251	270	288	306	5
4	022	044	066	088	110	132	153	174	195	216	236	256	275	294	313	4
3	023	045	068	090	112	134	156	178	199	220	241	261	281	300	319	3
2	023	046	069	092	114	137	159	181	203	224	245	266	286	306	325	2
1	023	047	070	093	116	139	162	184	207	229	250	271	292	312	332	1
— 7.0	024	048	071	095	119	142	165	188	210	233	255	276	297	318	338	— 7.0
— 6.9	0024	0048	0073	0097	0121	0144	0168	0191	0214	0237	0260	0281	0303	0324	0344	— 6.9
8	025	049	074	098	123	147	171	195	218	241	264	286	308	330	351	8
7	025	050	075	100	125	150	174	198	222	246	269	292	314	336	357	7
6	026	051	076	102	127	152	177	202	226	250	274	297	319	342	364	6
5	026	052	078	104	129	155	180	205	230	254	278	302	325	348	370	5
4	026	053	079	105	131	157	183	208	234	258	283	307	330	354	376	4
3	027	054	080	107	133	160	186	212	237	263	288	312	336	360	383	3
2	027	054	082	109	136	162	189	215	241	267	292	317	342	366	389	2
1	028	055	083	110	138	165	192	218	245	271	297	322	347	372	396	1
— 6.0	028	056	084	112	140	168	195	222	249	275	302	327	353	378	402	— 6.0
— 5.9	0029	0057	0085	0114	0142	0170	0198	0225	0253	0280	0306	0332	0358	0384	0408	— 5.9
8	029	058	087	116	144	173	201	229	256	284	311	337	363	390	415	8
7	029	059	088	117	146	175	204	232	260	288	316	342	369	395	421	7
6	030	060	089	119	148	178	207	235	264	292	320	348	375	401	427	6
5	030	060	090	121	150	180	210	239	268	297	325	353	380	407	434	5
4	031	061	092	122	153	183	213	242	272	301	330	358	386	413	440	4
3	031	062	093	124	155	185	216	246	276	305	334	363	391	419	447	3
2	032	063	094	126	157	188	219	249	279	309	339	368	397	425	453	2
1	032	064	096	127	159	190	222	252	283	314	344	373	402	431	459	1
— 5.0	032	065	097	129	161	193	225	256	287	318	348	378	408	437	466	— 5.0
— 4.0	0033	0066	0098	0131	0163	0196	0228	0259	0291	0322	0353	0383	0413	0443	0472	— 4.9
8	033	066	100	132	165	198	231	263	295	326	358	388	419	449	478	8
7	034	067	101	134	167	201	234	266	298	331	362	394	424	455	485	7
6	034	068	102	136	170	203	237	270	302	335	367	399	430	461	491	6
5	034	069	103	138	172	206	240	273	306	339	372	404	436	467	498	5
4	035	070	105	139	174	208	242	276	310	343	376	409	441	473	504	4
3	035	071	106	141	176	211	245	280	314	348	381	414	447	479	510	3
2	036	071	107	143	178	213	248	283	318	352	386	419	452	485	517	2
1	036	072	108	144	180	216	251	286	322	356	390	424	458	491	523	1
— 4.0	037	073	110	146	182	218	254	290	325	360	395	429	463	497	529	— 4.0
— 3.9	0037	0074	0111	0148	0184	0221	0257	0293	0329	0365	0400	0434	0469	0503	0536	— 3.9
8	038	075	112	150	187	224	260	297	333	369	404	439	474	508	542	8
7	038	076	114	151	189	226	263	300	337	373	409	445	480	514	549	7
6	038	076	115	153	191	229	266	304	341	377	414	450	485	520	555	6
5	039	077	116	155	193	231	269	307	344	382	418	455	491	526	561	5
4	039	078	117	156	195	234	272	310	348	386	423	460	496	532	568	4
3	040	079	119	158	197	236	275	314	352	390	428	465	502	538	574	3
2	040	080	120	160	199	239	278	317	356	394	432	470	507	544	580	2
1	040	081	121	161	201	242	281	320	360	399	437	475	513	550	587	1
— 3.0	041	082	122	163	204	244	284	324	364	403	442	480	518	556	593	— 3.0



TABLE IX. *continued.*—For  $D = -17^\circ$ .

Y Negative.

 $\xi = X - \frac{1}{30} X - \frac{1}{200} X$  — following table.

X. Y.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	X. Y.
— 2.9	0041	0082	0124	0165	0206	0247	0287	0327	0367	0407	0447	0485	0524	0562	0600	— 2.9
8	042	083	125	166	208	249	290	331	371	412	451	491	530	568	606	8
7	042	084	126	168	210	252	293	334	375	416	456	496	535	574	612	7
6	043	085	128	170	212	254	296	338	379	420	461	501	540	580	619	6
5	043	086	129	172	214	257	299	341	383	424	465	506	546	586	625	5
4	043	087	130	173	216	259	302	344	387	428	470	511	552	592	632	4
3	044	088	131	175	218	262	305	348	390	433	475	516	557	598	638	3
2	044	088	133	177	221	264	308	351	394	437	479	521	562	604	644	2
1	045	089	134	178	223	267	311	354	398	441	484	526	568	610	651	1
— 2.0	045	090	135	180	225	270	314	358	402	446	489	531	574	616	657	— 2.0
— 1.9	0046	0091	0136	0182	0227	0272	0317	0361	0406	0450	0494	0536	0579	0622	0664	— 1.9
8	046	092	138	184	229	275	320	365	410	454	498	542	585	628	670	8
7	046	093	139	185	231	277	323	368	413	458	503	547	590	634	676	7
6	047	094	140	187	233	280	326	372	417	462	507	552	596	640	682	6
5	047	094	142	189	236	282	329	375	421	467	512	557	601	646	689	5
4	048	095	143	190	238	285	332	378	425	471	517	562	607	651	695	4
3	048	096	144	192	240	288	335	382	429	475	522	567	612	657	702	3
2	048	097	145	194	242	290	338	385	432	480	526	572	618	663	708	2
1	049	098	147	195	244	293	341	389	436	484	531	577	624	669	714	1
— 1.0	049	099	148	197	246	295	344	392	440	488	536	582	629	675	721	— 1.0
— 0.9	0050	0100	0149	0199	0248	0298	0347	0395	0444	0492	0540	0588	0634	0681	0727	— 0.9
8	050	100	150	200	250	300	350	399	448	496	545	593	640	687	734	8
7	051	101	152	202	252	303	353	402	452	501	550	598	646	693	740	7
6	051	102	153	204	255	305	356	406	455	505	554	603	651	699	746	6
5	052	103	154	206	257	308	359	409	459	509	559	608	657	705	753	5
4	052	104	156	207	259	310	362	412	463	514	564	613	662	711	759	4
3	052	105	157	209	261	313	365	416	467	518	568	618	668	717	766	3
2	053	106	158	211	263	316	368	419	471	522	573	623	673	723	772	2
1	053	106	159	212	265	318	370	423	475	526	578	628	679	729	778	1
— 0.0	0054	0107	0161	0214	0267	0321	0373	0426	0478	0530	0582	0633	0684	0735	0784	— 0.0



TABLE X.—For  $D = -17^\circ$ .

Y Positive.

 $\xi = X - \frac{1}{30} X - \frac{1}{100} X$  — following table.

X. Y.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	X. Y.
+ 0.0	·0004	·0007	·0011	·0014	·0017	·0021	·0023	·0026	·0028	·0031	·0032	·0033	·0034	·0035	·0035	+ 0.0
1	004	008	012	016	020	023	026	029	032	035	037	038	040	041	041	1
2	004	009	013	018	022	026	029	033	036	039	042	044	045	047	047	2
3	005	010	014	019	024	028	032	036	040	043	046	049	051	053	054	3
4	005	011	016	021	026	031	035	040	044	048	051	054	056	058	060	4
5	006	011	017	023	028	033	038	043	048	052	056	059	062	064	066	5
6	006	012	018	024	030	036	041	046	051	056	060	064	067	070	073	6
7	007	013	020	026	032	038	044	050	055	060	065	069	073	076	079	7
8	007	014	021	028	034	041	047	053	059	065	070	074	078	082	086	8
+ 0.9	008	015	022	029	036	044	050	057	063	069	074	079	084	088	092	+ 0.9
+ 1.0	·0008	·0016	·0023	·0031	·0039	·0046	·0053	·0060	·0067	·0073	·0079	·0084	·0089	·0094	·0098	+ 1.0
1	008	016	025	033	041	049	056	063	070	077	084	090	095	100	105	1
2	009	017	026	035	043	051	059	067	074	082	088	095	101	106	111	2
3	009	018	027	036	045	054	062	070	078	086	093	100	106	112	118	3
4	010	019	029	038	047	056	065	074	082	090	098	105	112	118	124	4
5	010	020	030	040	049	059	068	077	086	094	102	110	117	124	130	5
6	010	021	031	041	051	061	071	080	090	098	107	115	123	130	136	6
7	011	022	032	043	054	064	074	084	093	103	112	120	128	136	143	7
8	011	022	034	045	056	066	077	087	097	107	116	125	134	142	150	8
+ 1.9	012	023	035	046	058	069	080	091	101	111	121	130	139	148	156	+ 1.9
+ 2.0	·0012	·0024	·0036	·0048	·0060	·0072	·0083	·0094	·0105	·0116	·0126	·0135	·0145	·0154	·0162	+ 2.0
1	013	025	038	050	062	074	086	097	109	120	130	140	150	160	168	1
2	013	026	039	052	064	077	089	101	113	124	135	146	156	166	175	2
3	013	027	040	053	066	079	092	104	116	128	140	151	161	172	181	3
4	014	028	041	055	068	082	095	108	120	133	144	156	167	178	188	4
5	014	028	043	057	070	084	098	111	124	137	149	161	172	184	194	5
6	015	029	044	058	073	087	101	114	128	141	154	166	178	190	200	6
7	015	030	045	060	075	090	104	118	132	145	158	171	183	195	207	7
8	016	031	046	062	077	092	107	121	136	150	163	176	189	201	213	8
+ 2.9	016	032	048	063	079	095	110	125	139	154	168	181	194	207	220	+ 2.9
+ 3.0	·0016	·0033	·0049	·0065	·0081	·0097	·0113	·0128	·0143	·0158	·0173	·0186	·0200	·0213	·0226	+ 3.0
1	017	034	050	067	083	100	116	131	147	162	177	191	205	219	232	1
2	017	034	052	069	085	102	119	135	151	167	182	197	211	225	239	2
3	018	035	053	070	088	105	122	138	155	171	187	202	217	231	245	3
4	018	036	054	072	090	107	125	142	158	175	191	207	222	237	251	4
5	018	037	055	074	092	110	128	145	162	180	196	212	228	243	258	5
6	019	038	057	075	094	112	131	148	166	184	201	217	233	249	264	6
7	019	039	058	077	096	115	134	152	170	188	205	222	239	255	271	7
8	020	040	059	079	098	118	136	155	174	192	210	227	244	261	277	8
+ 3.9	020	040	060	080	100	120	139	159	178	196	215	232	250	267	283	+ 3.9
+ 4.0	·0021	·0041	·0062	·0082	·0102	·0123	·0142	·0162	·0182	·0201	·0219	·0238	·0255	·0273	·0290	+ 4.0
1	021	042	063	084	105	125	145	166	185	205	224	243	261	279	296	1
2	022	043	064	086	107	128	148	169	189	209	229	248	266	285	302	2
3	022	044	066	087	109	130	151	172	193	213	233	253	272	291	309	3
4	022	045	067	089	111	133	154	176	197	218	238	258	277	297	315	4
5	023	045	068	091	113	135	157	179	200	222	243	263	283	303	322	5
6	023	046	069	092	115	138	160	182	204	226	247	268	288	309	328	6
7	024	047	071	094	117	140	163	186	208	230	252	273	294	315	334	7
8	024	048	072	096	120	143	166	189	212	235	257	278	300	320	341	8
+ 4.9	024	049	073	098	122	146	169	193	216	239	262	283	305	326	347	+ 4.9



TABLE X. *continued.*—For D = - 17°.Y Positive.  $\xi = X - \frac{1}{30} X - \frac{1}{100} X$  — following table.

X. Y.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	X. Y.
+ 5.0	0025	0050	0074	0099	0124	0148	0172	0196	0220	0243	0266	0289	0311	0332	0354	+ 5.0
1	025	050	076	101	126	151	175	200	224	247	271	294	316	338	360	1
2	026	051	077	103	128	153	178	203	227	252	275	299	322	344	366	2
3	026	052	078	104	130	156	181	206	231	256	280	304	327	350	373	3
4	027	053	080	106	132	158	184	210	235	260	285	309	333	356	379	4
5	027	054	081	108	134	161	187	213	239	264	290	314	338	362	385	5
6	027	055	082	109	136	164	190	216	243	269	294	319	344	368	392	6
7	028	056	083	111	139	166	193	220	246	273	299	324	349	374	398	7
8	028	056	085	113	141	169	196	223	250	277	304	329	355	380	405	8
+ 5.9	029	057	086	114	143	171	199	227	254	281	308	334	360	386	411	+ 5.9
+ 6.0	0029	0058	0087	0116	0145	0174	0202	0230	0258	0286	0313	0340	0366	0392	0417	+ 6.0
1	030	059	088	118	147	176	205	234	262	290	318	345	371	398	424	1
2	030	060	090	120	149	179	208	237	266	294	322	350	377	404	430	2
3	030	061	091	121	151	181	211	240	270	298	327	355	382	410	436	3
4	031	062	092	123	153	184	214	244	273	303	332	360	388	416	443	4
5	031	062	094	125	156	186	217	247	277	307	336	365	394	422	449	5
6	032	063	095	126	158	189	220	250	281	311	341	370	399	428	456	6
7	032	064	096	128	160	192	223	254	285	315	346	375	405	434	462	7
8	033	065	097	130	162	194	226	257	289	320	350	380	410	440	468	8
+ 6.9	033	066	099	132	164	197	229	261	292	324	355	385	416	446	475	+ 6.9
+ 7.0	0033	0067	0100	0133	0166	0199	0232	0264	0296	0328	0360	0391	0421	0452	0481	+ 7.0
1	034	068	101	135	168	202	235	268	300	332	364	396	427	457	487	1
2	034	068	103	137	170	204	238	271	304	337	369	401	432	463	494	2
3	035	069	104	138	173	207	241	274	308	341	374	406	438	469	500	3
4	035	070	105	140	175	209	244	278	312	345	378	411	443	475	507	4
5	036	071	106	142	177	212	247	281	315	349	383	416	449	481	513	5
6	036	072	108	143	179	214	250	284	319	354	388	421	454	487	520	6
7	036	073	109	145	181	217	253	288	323	358	392	426	460	493	526	7
8	037	074	110	147	183	220	256	291	327	362	397	431	465	499	532	8
+ 7.9	037	074	112	148	185	222	259	295	331	366	402	437	471	505	539	+ 7.9
+ 8.0	0038	0075	0113	0150	0187	0225	0262	0298	0334	0371	0406	0442	0476	0511	0545	+ 8.0
1	038	076	114	152	190	227	265	302	338	375	411	447	482	517	551	1
2	038	077	115	154	192	230	268	305	342	379	416	452	488	523	558	2
3	039	078	117	155	194	232	270	308	346	384	420	457	493	529	564	3
4	039	079	118	157	196	235	273	312	350	388	425	462	499	535	570	4
5	040	079	119	159	198	237	276	315	354	392	430	467	504	541	577	5
6	040	080	120	160	200	240	279	318	358	396	434	472	510	547	583	6
7	041	081	122	162	202	243	282	322	361	400	439	477	515	553	590	7
8	041	082	123	164	204	245	285	325	365	405	444	482	521	559	596	8
+ 8.9	042	083	124	166	207	248	288	329	369	409	449	488	526	565	602	+ 8.9
+ 9.0	0042	0084	0126	0167	0209	0250	0291	0332	0373	0413	0453	0493	0532	0571	0609	+ 9.0
1	042	085	127	169	211	253	294	336	377	418	458	498	537	576	615	1
2	043	085	128	171	213	255	297	339	380	422	462	503	543	582	621	2
3	043	086	129	172	215	258	300	342	384	426	467	508	548	588	628	3
4	044	087	131	174	217	260	303	346	388	430	472	513	554	594	634	4
5	044	088	132	176	219	263	306	349	392	434	477	518	559	600	640	5
6	044	089	133	177	221	266	309	352	396	439	481	523	565	606	647	6
7	045	090	134	179	224	268	312	356	400	443	486	528	570	612	653	7
8	045	090	136	181	226	271	315	359	404	447	491	534	576	618	660	8
+ 9.9	046	091	137	182	228	273	318	363	407	452	495	539	582	624	666	+ 9.9



TABLE X. *continued.*—For  $D = -17^\circ$ .

Y Positive.

 $\xi = X = \frac{1}{30} X - \frac{1}{100} X$  — following table.

X. Y.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	X. Y.
+10.0	0046	0092	0138	0184	0230	0276	0321	0366	0411	0456	0500	0544	0587	0630	0672	+10.0
1	047	093	139	186	232	278	324	370	415	460	505	549	592	636	679	1
2	047	094	141	188	234	281	327	373	419	464	509	554	598	642	685	2
3	047	095	142	189	236	283	330	376	423	468	514	559	604	648	692	3
4	048	096	143	191	238	286	333	380	426	473	519	564	609	654	698	4
5	048	096	145	193	241	288	336	383	430	477	523	569	614	660	704	5
6	049	097	146	194	243	291	339	387	434	481	528	574	620	666	711	6
7	049	098	147	196	245	294	342	390	438	486	533	579	626	672	717	7
8	050	099	148	198	247	296	345	393	442	490	538	584	631	678	724	8
+10.9	050	100	150	200	249	299	348	397	446	494	542	590	637	684	730	+10.9
+11.0	0050	0101	0151	0201	0251	0301	0351	0400	0449	0498	0547	0595	0642	0690	0736	+11.0
1	051	102	152	203	253	304	354	404	453	502	551	600	648	696	742	1
2	051	102	154	205	256	306	357	407	457	507	556	605	653	702	749	2
3	052	103	155	206	258	309	360	410	461	511	561	610	659	707	755	3
4	052	104	156	208	260	312	363	414	465	515	566	615	664	713	762	4
5	052	105	157	210	262	314	366	417	468	520	570	620	670	719	768	5
6	053	106	159	211	264	317	369	421	472	524	575	625	676	725	774	6
7	053	107	160	213	266	319	372	424	476	528	580	630	681	731	781	7
8	054	108	161	215	268	322	375	427	480	532	584	636	686	737	787	8
+11.9	054	108	162	216	270	324	378	431	484	536	589	641	692	743	794	+11.9
+12.0	0055	0109	0164	0218	0272	0327	0381	0434	0488	0541	0594	0646	0698	0749	0800	+12.0
1	055	110	165	220	275	329	384	438	492	545	598	651	703	755	806	1
2	056	111	166	222	277	332	387	441	495	549	603	656	709	761	813	2
3	056	112	168	223	279	334	390	444	499	554	608	661	714	767	819	3
4	056	113	169	225	281	337	393	448	503	558	612	666	720	773	826	4
5	057	113	170	227	283	340	396	451	507	562	617	671	725	779	832	5
6	057	114	171	228	285	342	399	455	511	566	622	676	731	785	838	6
7	058	115	173	230	287	345	402	458	514	571	626	682	736	791	845	7
8	058	116	174	232	290	347	404	462	518	575	631	687	742	797	851	8
+12.9	058	117	175	234	292	350	407	465	522	579	636	692	747	803	858	+12.9
+13.0	0059	0118	0176	0235	0294	0352	0410	0468	0526	0583	0640	0697	0753	0809	0864	+13.0



TABLE XI.—For  $D = -17^\circ$ . $\eta$  Negative. $X = \xi + \frac{1}{40}\xi + \frac{1}{70}\xi + \text{following table.}$ 

$\xi.$ $\eta.$	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	$\xi.$ $\eta.$
—13.0	0004	0008	0012	0015	0019	0022	0025	0028	0030	0032	0033	0034	0034	—13.0
—12.9	0004	0009	0013	0017	0021	0025	0028	0031	0034	0036	0038	0039	0040	—12.9
8	005	010	014	019	023	028	031	035	038	041	043	045	046	8
7	005	011	016	021	026	030	035	039	042	046	048	050	052	7
6	006	012	017	023	028	033	038	042	046	050	053	056	058	6
5	006	012	019	025	030	036	041	046	050	055	058	061	064	5
4	007	013	020	026	033	039	044	050	055	059	063	067	070	4
3	007	014	021	028	035	041	048	053	059	064	068	072	076	3
2	008	015	023	030	037	044	051	057	063	068	073	078	082	2
1	008	016	024	032	040	047	054	061	067	073	078	083	088	1
—12.0	009	017	026	034	042	050	057	064	071	078	084	089	094	—12.0
—11.9	0009	0018	0027	0036	0044	0052	0060	0068	0075	0082	0089	0094	0100	—11.9
8	010	019	028	038	046	055	064	072	080	087	094	100	106	8
7	010	020	030	039	049	058	067	075	084	092	099	106	112	7
6	010	021	031	041	051	061	070	079	088	096	104	111	118	6
5	011	022	032	043	053	064	073	083	092	101	109	117	124	5
4	011	023	034	045	056	066	076	086	096	105	114	122	130	4
3	012	024	035	047	058	069	080	090	100	110	119	128	136	3
2	012	024	037	048	060	072	083	094	104	114	124	133	142	2
1	013	025	038	050	063	075	086	098	108	119	129	139	148	1
—11.0	013	026	039	052	065	077	089	101	113	124	134	144	154	—11.0
—10.9	0014	0027	0041	0054	0067	0080	0093	0105	0117	0128	0139	0150	0160	—10.9
8	014	028	042	056	069	083	096	109	121	133	144	155	166	8
7	015	029	043	058	072	086	099	112	125	138	149	161	172	7
6	015	030	045	060	074	088	102	116	129	142	154	166	177	6
5	016	031	046	061	076	091	106	120	133	147	160	172	183	5
4	016	032	048	063	079	094	109	123	138	151	165	177	189	4
3	016	033	049	065	081	097	112	127	142	156	170	183	195	3
2	017	034	050	067	083	099	115	131	146	160	175	188	201	2
1	017	035	052	069	086	102	118	134	150	165	180	194	207	1
—10.0	018	036	053	071	088	105	122	138	154	170	185	199	213	—10.0
—9.9	0018	0036	0054	0072	0090	0108	0125	0142	0158	0174	0190	0205	0219	—9.9
8	019	037	056	074	092	110	128	145	162	179	195	210	225	8
7	019	038	057	076	095	113	131	149	166	184	200	216	231	7
6	020	039	059	078	097	116	134	153	171	188	205	222	237	6
5	020	040	060	080	099	119	138	156	175	193	210	227	243	5
4	021	041	061	082	102	122	141	160	179	197	215	233	249	4
3	021	042	063	084	104	124	144	164	183	202	220	238	255	3
2	022	043	064	085	106	127	147	168	187	207	225	244	261	2
1	022	044	066	087	109	130	151	171	192	211	230	249	267	1
—9.0	022	045	067	089	111	133	154	175	196	215	236	255	273	—9.0
—8.9	0023	0046	0068	0091	0113	0135	0157	0179	0200	0220	0241	0260	0279	—8.9
8	023	046	070	093	116	138	160	182	204	225	246	266	285	8
7	024	047	071	095	118	141	164	186	208	230	251	271	291	7
6	024	048	072	096	120	144	167	190	212	234	256	277	297	6
5	025	049	074	098	122	146	170	194	216	239	261	282	303	5
4	025	050	075	100	125	149	173	197	220	244	266	288	309	4
3	026	051	077	102	127	152	176	201	225	248	271	294	315	3
2	026	052	078	104	129	155	180	204	229	253	276	299	321	2
1	027	053	079	106	132	158	183	208	233	257	281	305	327	1
—8.0	027	054	081	108	134	160	186	212	237	262	286	310	333	—8.0



TABLE XI. *continued.*—For  $D = -17^\circ$ . $\eta$  Negative. $X = \xi + \frac{1}{40}\xi + \frac{1}{70}\xi + \text{following table.}$ 

$\xi.$ $\eta.$	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	$\xi.$ $\eta.$
— 7.9	0028	0055	0082	0109	0136	0163	0189	0216	0241	0267	0291	0316	0339	— 7.9
8	028	056	084	111	139	166	193	219	246	271	296	321	345	8
7	028	057	085	113	141	169	196	223	250	276	302	327	351	7
6	029	058	086	115	143	171	199	227	254	280	307	332	357	6
5	029	058	088	117	146	174	202	230	258	285	312	338	363	5
4	030	059	089	119	148	177	206	234	262	290	317	343	369	4
3	030	060	090	120	150	180	209	238	266	294	322	349	375	3
2	031	061	092	122	152	182	212	242	270	299	327	354	381	2
1	031	062	093	124	155	185	215	245	274	304	332	360	387	1
— 7.0	032	063	095	126	157	188	219	249	279	308	337	366	393	— 7.0
— 6.9	0032	0064	0096	0128	0159	0191	0222	0253	0283	0313	0342	0371	0399	— 6.9
8	033	065	097	130	162	194	225	256	287	317	347	377	405	8
7	033	066	099	132	164	196	228	260	291	322	352	382	411	7
6	034	067	100	133	166	199	232	264	295	327	357	388	417	6
5	034	068	102	135	169	202	235	267	300	331	362	393	423	5
4	034	069	103	137	171	205	238	271	304	336	368	399	429	4
3	035	070	104	139	173	208	241	275	308	341	373	404	435	3
2	035	070	106	141	176	210	244	278	312	345	378	410	441	2
1	036	071	107	143	178	213	248	282	316	350	383	416	447	1
— 6.0	036	072	108	144	180	216	251	286	320	354	388	421	453	— 6.0
— 5.9	0037	0073	0110	0146	0183	0219	0254	0290	0324	0359	0393	0427	0460	— 5.9
8	037	074	111	148	185	221	257	293	329	364	398	432	466	8
7	038	075	113	150	187	224	261	297	333	368	403	438	472	7
6	038	076	114	152	190	227	264	301	337	373	408	443	478	6
5	039	077	115	154	192	230	267	304	341	378	413	449	484	5
4	039	078	117	156	194	232	270	308	345	382	418	454	490	4
3	040	079	118	157	196	235	274	312	349	387	424	460	496	3
2	040	080	120	159	199	238	277	315	354	391	429	465	502	2
1	040	081	121	161	201	241	280	319	358	396	434	471	508	1
— 5.0	041	082	122	163	203	244	283	323	362	401	439	476	514	— 5.0
— 4.9	0041	0083	0124	0165	0206	0246	0287	0327	0366	0405	0444	0482	0520	— 4.9
8	042	084	125	167	208	249	290	330	370	410	449	488	526	8
7	042	084	127	168	210	252	293	334	374	415	454	493	532	7
6	043	085	128	170	213	255	296	338	379	419	459	499	538	6
5	043	086	129	172	215	257	300	341	383	424	464	504	544	5
4	044	087	131	174	217	260	303	345	387	428	470	510	550	4
3	044	088	132	176	220	263	306	349	391	433	475	516	556	3
2	045	089	134	178	222	266	309	353	395	438	480	521	562	2
1	045	090	135	180	224	268	312	356	400	442	485	527	568	1
— 4.0	046	091	136	182	226	271	316	360	404	447	490	532	574	— 4.0
— 3.9	0046	0092	0138	0183	0229	0274	0319	0364	0408	0452	0495	0538	0580	— 3.9
8	046	093	139	185	231	277	322	367	412	456	500	543	586	8
7	047	094	140	187	233	280	325	371	416	461	505	549	592	7
6	047	095	142	189	236	282	329	375	420	466	510	554	598	6
5	048	096	143	191	238	285	332	378	424	470	515	560	604	5
4	048	096	145	193	240	288	335	382	429	475	520	566	610	4
3	049	097	146	194	243	291	338	386	433	479	525	571	616	3
2	049	098	147	196	245	294	342	390	437	484	531	577	622	2
1	050	099	149	198	247	296	345	393	441	489	536	582	628	1
— 3.0	050	100	150	200	250	299	348	397	445	493	541	588	634	— 3.0



TABLE XI. *continued.*—For  $D = -17^\circ$ . $\eta$  Negative.

$$X = \xi + \frac{1}{40}\xi + \frac{1}{70}\xi + \text{following table.}$$

$\xi.$ $\eta.$	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	$\xi.$ $\eta.$
— 2.9	0051	0101	0152	0202	0252	0302	0351	0401	0450	0498	0546	0593	0640	— 2.9
8	051	102	153	204	254	305	355	404	454	503	551	599	646	8
7	052	103	154	206	257	308	358	408	458	507	556	604	652	7
6	052	104	156	208	259	310	361	412	462	512	561	610	658	6
5	052	105	157	209	261	313	364	416	466	517	566	616	664	5
4	053	106	159	211	264	316	368	419	470	521	571	621	670	4
3	053	107	160	213	266	319	371	423	474	526	576	627	676	3
2	054	108	161	215	268	321	374	427	479	530	582	632	682	2
1	054	109	163	217	271	324	377	430	483	535	587	638	688	1
— 2.0	055	110	164	219	273	327	381	434	487	540	592	644	694	— 2.0
— 1.9	0055	0110	0166	0220	0275	0330	0384	0438	0491	0544	0597	0649	0700	— 1.9
8	056	111	167	222	278	333	387	442	496	549	602	655	706	8
7	056	112	168	224	280	335	390	445	500	554	607	660	712	7
6	057	113	170	226	282	338	394	449	504	558	612	666	719	6
5	057	114	171	228	284	341	397	453	508	563	617	671	725	5
4	058	115	172	230	287	344	400	456	512	568	622	677	731	4
3	058	116	174	232	289	346	403	460	516	572	628	682	737	3
2	058	117	175	234	291	349	407	464	520	577	633	688	743	2
1	059	118	177	235	294	352	410	468	525	582	638	694	749	1
— 1.0	059	119	178	237	296	355	413	471	529	586	643	699	755	— 1.0
— 0.9	0060	0120	0179	0239	0298	0358	0416	0475	0533	0591	0648	0705	0761	— 0.9
8	060	121	181	241	301	360	420	479	537	596	653	710	767	8
7	061	122	182	243	303	363	423	482	542	600	658	716	773	7
6	061	122	184	245	305	366	426	486	546	605	663	722	779	6
5	062	123	185	246	308	369	429	490	550	609	668	727	785	5
4	062	124	186	248	310	372	433	494	554	614	674	733	791	4
3	063	125	188	250	312	374	436	497	558	619	679	738	797	3
2	063	126	189	252	315	377	439	501	562	623	684	744	803	2
1	064	127	191	254	317	380	442	505	566	628	689	749	809	1
— 0.0	0064	0128	0192	0256	0319	0383	0446	0508	0571	0633	0694	0755	0815	— 0.0



TABLE XII.—For  $D = -17^\circ$ . $\eta$  Positive. $X = \xi + \frac{1}{40}\xi + \frac{1}{50}\xi + \text{following table.}$ 

$\xi.$ $\eta.$	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	$\xi.$ $\eta.$
+ 0.0	0007	0014	0021	0027	0034	0040	0046	0051	0056	0061	0066	0069	0072	+ 0.0
1	007	015	022	029	036	043	049	055	061	066	071	075	078	1
2	008	016	023	031	038	046	052	059	065	070	076	080	084	2
3	008	016	025	033	041	048	055	062	069	075	081	086	090	3
4	009	017	026	035	043	051	059	066	073	080	086	092	096	4
5	009	018	028	036	045	054	062	070	077	084	091	097	102	5
6	010	019	029	038	048	057	065	074	082	089	096	103	109	6
7	010	020	030	040	050	059	068	077	086	094	101	108	115	7
8	011	021	032	042	052	062	072	081	090	098	106	114	121	8
+ 0.9	011	022	033	044	055	065	075	085	094	103	112	119	127	+ 0.9
+ 1.0	0012	0023	0034	0046	0057	0068	0078	0088	0098	0108	0117	0125	0133	+ 1.0
1	012	024	036	048	059	071	082	092	102	112	122	131	139	1
2	012	025	037	050	062	073	085	096	107	117	127	136	145	2
3	013	026	039	051	064	076	088	100	111	122	132	142	151	3
4	013	027	040	053	066	079	091	103	115	126	137	147	157	4
5	014	028	042	055	069	082	095	107	119	131	142	153	163	5
6	014	029	043	057	071	084	098	111	123	136	147	158	169	6
7	015	030	044	059	073	087	101	115	128	140	152	164	175	7
8	015	030	046	061	076	090	104	118	132	145	158	170	181	8
+ 1.9	016	031	047	063	078	093	108	122	136	150	163	175	187	+ 1.9
+ 2.0	0016	0032	0048	0064	0080	0096	0111	0126	0140	0154	0168	0181	0193	+ 2.0
1	017	033	050	066	082	098	114	130	144	159	173	186	199	1
2	017	034	051	068	085	101	117	133	149	164	178	192	205	2
3	018	035	053	070	087	104	121	137	153	168	183	198	211	3
4	018	036	054	072	090	107	124	141	157	173	188	203	218	4
5	019	037	056	074	092	110	127	144	161	178	194	209	224	5
6	019	038	057	076	094	112	130	148	165	182	199	214	230	6
7	020	039	058	078	096	115	134	152	170	187	204	220	236	7
8	020	040	060	079	099	118	137	156	174	192	209	226	242	8
+ 2.9	020	041	061	081	101	121	140	159	178	196	214	231	248	+ 2.9
+ 3.0	0021	0042	0062	0083	0104	0124	0144	0163	0182	0201	0219	0237	0254	+ 3.0
1	021	043	064	085	106	126	147	167	186	206	224	242	260	1
2	022	044	065	087	108	129	150	170	191	210	229	248	266	2
3	022	044	067	089	110	132	153	174	195	215	235	254	272	3
4	023	045	068	090	113	135	156	178	199	220	240	259	278	4
5	023	046	070	092	115	138	160	182	203	224	245	265	284	5
6	024	047	071	094	117	140	163	185	207	229	250	270	290	6
7	024	048	072	096	120	143	166	189	212	234	255	276	296	7
8	025	049	074	098	122	146	170	193	216	238	260	282	302	8
+ 3.9	025	050	075	100	124	149	173	197	220	243	265	287	308	+ 3.9
+ 4.0	0026	0051	0076	0102	0127	0152	0176	0200	0224	0248	0270	0293	0314	+ 4.0
1	026	052	078	104	129	154	179	204	228	252	276	298	321	1
2	026	053	079	106	132	157	183	208	233	257	281	304	327	2
3	027	054	081	107	134	160	186	212	237	262	286	310	333	3
4	027	055	082	109	136	163	189	215	241	266	291	315	339	4
5	028	056	084	111	138	166	192	219	245	271	296	321	345	5
6	028	057	085	113	141	168	196	223	249	276	301	326	351	6
7	029	058	086	115	143	171	199	226	254	280	306	332	357	7
8	029	058	088	117	146	174	202	230	258	285	312	338	363	8
+ 4.9	030	059	089	118	148	177	206	234	262	290	317	343	369	+ 4.9



TABLE XII. *continued.*—For  $D = -17^\circ$ .

$\eta$  Positive.  $X = \xi + \frac{1}{40} \xi + \frac{1}{50} \xi + \text{following table.}$

$\xi.$ $\eta.$	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	$\xi.$ $\eta.$
+ 5.0	0030	0060	0090	0120	0150	0180	0209	0238	0266	0294	0322	0349	0375	+ 5.0
1	031	061	092	122	152	182	212	242	270	299	327	354	381	1
2	031	062	093	124	155	185	215	245	274	304	332	360	387	2
3	032	063	095	126	157	188	219	249	279	308	337	366	393	3
4	032	064	096	128	160	191	222	253	283	313	342	371	400	4
5	033	065	098	130	162	194	225	256	287	318	348	377	406	5
6	033	066	099	132	164	196	228	260	291	322	353	382	412	6
7	034	067	100	134	166	199	232	264	296	327	358	388	418	7
8	034	068	102	135	169	202	235	268	300	332	363	394	424	8
+ 5.9	034	069	103	137	171	205	238	271	304	336	368	399	430	+ 5.9
+ 6.0	0035	0070	0104	0139	0174	0208	0242	0275	0308	0341	0373	0405	0436	+ 6.0
1	035	071	106	141	176	210	245	279	312	346	378	410	442	1
2	036	072	107	143	178	213	248	283	317	350	384	416	448	2
3	036	072	109	145	180	216	251	286	321	355	389	422	454	3
4	037	073	110	147	183	219	255	290	325	360	394	427	460	4
5	037	074	112	148	185	222	258	294	329	364	399	433	466	5
6	038	075	113	150	188	225	261	298	334	369	404	438	472	6
7	038	076	114	152	190	227	264	301	338	374	409	444	478	7
8	039	077	115	154	192	230	268	305	342	378	414	450	484	8
+ 6.9	039	078	117	156	195	233	271	309	346	383	420	455	491	+ 6.9
+ 7.0	0040	0079	0118	0158	0197	0236	0274	0312	0350	0388	0425	0461	0497	+ 7.0
1	040	080	120	160	199	239	278	316	354	392	430	467	503	1
2	040	081	121	162	202	241	281	320	359	397	435	472	509	2
3	041	082	123	163	204	244	284	324	363	402	440	478	515	3
4	041	083	124	165	206	247	287	328	367	406	445	483	521	4
5	042	084	126	167	209	250	291	331	371	411	450	489	527	5
6	042	085	127	169	211	253	294	335	376	416	456	495	533	6
7	043	086	128	171	213	256	297	339	380	420	461	500	539	7
8	043	087	130	173	216	258	300	342	384	425	466	506	546	8
+ 7.9	044	088	131	175	218	261	304	346	388	430	471	512	552	+ 7.9
+ 8.0	0044	0088	0133	0176	0220	0264	0307	0350	0392	0434	0476	0517	0558	+ 8.0
1	045	089	134	178	223	267	310	354	397	439	481	523	564	1
2	045	090	135	180	225	270	314	358	401	444	486	528	570	2
3	046	091	137	182	227	272	317	361	405	449	492	534	576	3
4	046	092	138	184	230	275	320	365	409	453	497	540	582	4
5	047	093	140	186	232	278	323	369	414	458	502	545	588	5
6	047	094	141	188	234	281	327	372	418	463	507	551	594	6
7	048	095	142	190	237	284	330	376	422	467	512	556	600	7
8	048	096	144	192	239	286	333	380	426	472	517	562	606	8
+ 8.9	048	097	145	193	241	289	337	384	430	477	522	568	612	+ 8.9
+ 9.0	0049	0098	0147	0195	0244	0292	0340	0388	0435	0481	0528	0573	0618	+ 9.0
1	049	099	148	197	246	295	343	391	439	486	533	579	625	1
2	050	100	149	199	248	298	346	395	443	491	538	585	631	2
3	050	101	151	201	251	300	350	399	447	495	543	590	637	3
4	051	102	152	203	253	303	353	402	452	500	548	596	643	4
5	051	102	154	205	255	306	356	406	456	505	554	602	649	5
6	052	103	155	206	258	309	360	410	460	510	559	607	655	6
7	052	104	156	208	260	312	363	414	464	514	564	613	661	7
8	053	105	158	210	262	314	366	418	468	519	569	618	667	8
+ 9.9	053	106	159	212	265	317	369	421	472	524	574	624	673	+ 9.9



TABLE XII. *continued.*—For  $D = -17^\circ$ . $\eta$  Positive. $X = \xi + \frac{1}{40}\xi + \frac{1}{50}\xi + \text{following table.}$ 

$\xi.$ $\eta.$	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	$\xi.$ $\eta.$
+10.0	0054	0107	0161	0214	0267	0320	0373	0425	0477	0528	0579	0630	0679	+10.0
1	054	108	162	216	270	323	376	429	481	533	584	635	686	1
2	055	109	164	218	272	326	379	432	485	538	590	641	692	2
3	055	110	165	220	274	328	382	436	490	542	595	646	698	3
4	056	111	166	222	277	331	386	440	494	547	600	652	704	4
5	056	112	168	223	279	334	389	444	498	552	605	658	710	5
6	056	113	169	225	281	337	392	448	502	556	610	663	716	6
7	057	114	171	227	284	340	396	451	506	561	615	669	722	7
8	057	115	172	229	286	343	399	455	511	566	621	675	728	8
+10.9	058	116	173	231	288	346	402	459	515	570	626	680	734	+10.9
+11.0	0058	0117	0175	0233	0290	0348	0406	0462	0519	0575	0631	0686	0740	+11.0
1	059	118	176	235	293	351	409	466	523	580	636	692	747	1
2	059	118	178	237	295	354	412	470	528	585	641	697	753	2
3	060	119	179	238	298	357	415	474	532	589	646	703	759	3
4	060	120	180	240	300	360	419	478	536	594	652	708	765	4
5	061	121	182	242	302	362	422	481	540	599	657	714	771	5
6	061	122	183	244	305	365	425	485	544	603	662	720	777	6
7	062	123	185	246	307	368	428	489	549	608	667	725	783	7
8	062	124	186	248	309	371	432	493	553	613	672	731	789	8
+11.9	063	125	188	250	312	374	435	496	557	618	678	737	796	+11.9
+12.0	0063	0126	0189	0252	0314	0376	0438	0500	0561	0622	0683	0742	0802	+12.0
1	063	127	190	254	316	379	442	504	566	627	688	748	808	1
2	064	128	192	255	319	382	445	508	570	632	693	754	814	2
3	064	129	193	257	321	385	448	511	574	636	698	759	820	3
4	065	130	194	259	324	388	452	515	578	641	703	765	826	4
5	065	131	196	261	326	391	455	519	582	646	708	771	832	5
6	066	132	197	263	328	393	458	523	587	650	714	776	838	6
7	066	133	199	265	331	396	461	526	591	655	719	782	844	7
8	067	134	200	267	333	399	465	530	595	660	724	788	850	8
+12.9	067	134	202	268	335	402	468	534	599	664	729	793	857	+12.9
+13.0	0068	0135	0203	0270	0338	0405	0471	0538	0604	0669	0734	0799	0863	+13.0







# HYDERABAD ASTROGRAPHIC CATALOGUE

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## T A B L E S

FOR THE CONVERSION OF

MEASURED DIAMETERS OF THE STAR-IMAGES

IN

ZONE  $-17^{\circ}$

INTO

STELLAR PHOTOGRAPHIC MAGNITUDES BY  
MEANS OF THE FORMULA

$$m = a - 1.09 \sqrt{d}$$



## HYDERABAD ASTROGRAPHIC CATALOGUE, 1900-0.

Table for converting Diameters ( $d$ ) into Stellar Magnitudes ( $m$ ) by the formula  $m = a - 1.09\sqrt{d}$ . $a = 15.1$  to  $16.4$ .

$\begin{smallmatrix} a \\ d \end{smallmatrix}$	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.4	$\begin{smallmatrix} a \\ d \end{smallmatrix}$
8	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	8
9	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	9
10	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	10
11	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	11
12	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12
13	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	13
14	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	14
15	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	15
16	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	16
17	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	17
18	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	18
19	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	19
20	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	20
21	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	21
22	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	22
23	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	23
24	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	24
25	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	25
26	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	26
27	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	27
28	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	28
29	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	29
30	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	30
31	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	31
32	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	32
33	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	33
34	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	34
35	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	35
36	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	36
37	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	37
38	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	38
39	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	39
40	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	40
41	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	41
42	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	42
43	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	43
44	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	44
45	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	45
46	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	46
47	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	47
48	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	48
49	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	49
50	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	50
55	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	55
60	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	60
65	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	65
70	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	70
75	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	75
80	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	80
85	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	85
90	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	90
95	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	95
100	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	100
110	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	110
120	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	120
130	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	130
$\begin{smallmatrix} d \\ a \end{smallmatrix}$	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.4	$\begin{smallmatrix} d \\ a \end{smallmatrix}$



## HYDERABAD ASTROGRAPHIC CATALOGUE, 1900-0.

Table for converting Diameters ( $d$ ) into Stellar Magnitudes ( $m$ ) by the formula  $m=a-1.09\sqrt{d}$ . $a=16.5$  to  $17.8$ .

$a$ $d$	16.5	16.6	16.7	16.8	16.9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	$a$ $d$
8	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	8
9	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	9
10	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	10
11	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	11
12	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	12
13	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	13
14	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	14
15	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	15
16	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	16
17	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	17
18	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	18
19	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	19
20	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	20
21	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	21
22	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	22
23	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	23
24	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	24
25	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	25
26	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	26
27	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	27
28	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	28
29	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	29
30	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	30
31	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	31
32	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	32
33	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	33
34	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	34
35	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	35
36	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	36
37	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	37
38	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	38
39	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	39
40	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	40
41	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	41
42	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	42
43	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	43
44	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	44
45	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	45
46	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	46
47	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	47
48	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	48
49	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	49
50	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	50
55	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	55
60	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	60
65	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	65
70	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	70
75	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	75
80	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	80
85	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	85
90	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	90
95	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	95
100	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	100
110	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	110
120	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	120
130	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	130
$d$ $a$	16.5	16.6	16.7	16.8	16.9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	$d$ $a$







# HYDERABAD ASTROGRAPHIC CATALOGUE, 1900

ZONE  $-17^{\circ}$

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## MEASURES OF RECTANGULAR CO-ORDINATES AND DIAMETERS OF STAR-IMAGES

ON PHOTOGRAPHS TAKEN AT THE NIZAMIAH OBSERVATORY,  
HYDERABAD



## EXPLANATION OF THE COLUMNS.

The heading of each plate gives the approximate R.A. of the centre, the number of the plate in the Hyderabad series, the date of exposure, the provisional constants by means of which the measures may be converted into standard co-ordinates (see Introduction, Sections VII., VIII.), and the formula connecting magnitude and diameter (see Introduction, Section V.).

The first column gives a reference number which is purely arbitrary ; in order to designate a star it is only necessary to state the zone and the number, thus,  $-17^{\circ}$ , 4075 ; neither the plate number nor the R.A. of the plate centre need be stated. Since a gap is always left between the last number of any plate and the first number of the next following plate, there are many numbers which are not allotted to stars, thus there is no star  $-17^{\circ}$ , 4120.

The second column gives the measured diameter, estimated in units of  $0''.15$ , these diameters may be converted into magnitudes by means of the formula printed at the head of each plate.

The third and fourth columns give the measured co-ordinates of the stars, denoted by  $x$ ,  $y$ , the directions of the co-ordinate axes being approximately those of increasing R.A. and S. Declination, and the origin being the corner of the plate : the plate centre is approximately at the point (13, 13).

The stars are arranged in order of the value of the  $x$  co-ordinate for each zone of one unit of  $y$  (approximately  $5''$ ). Each printed measure is the mean of at least two independent bisections of the star-image made in positions of the plate differing by  $180^{\circ}$ .



R.A. 0<sup>h</sup> 4<sup>m</sup>

Plate 791; 1916 Nov. 15.

Provisional Constants.

A B C  
-02583 +00353 +2632D E F  
-00326 -02587 -1677

Mag. = 17.0 - 1.09√d

No.	d	x	y
1	17	5.243	0.359
2	18	8.042	0.520
3	30	12.100	0.837
4	25	12.681	0.500
5*	124	19.047	0.962
6	8	19.327	0.634
7	8	7.910	1.336
8	19	11.758	1.440
9	26	12.635	1.710
10	11	17.232	1.724
11	22	19.438	1.034
12*	41	23.976	1.701
13	17	24.348	1.809
14*	42	24.962	1.362
15	22	2.308	2.963
16	8	11.781	2.392
17	26	13.768	2.022
18	8	14.376	2.404
19	9	14.824	2.135
20	19	15.562	2.543
21*	46	22.474	2.388
22	40	1.196	3.929
23	21	2.330	3.776
24	8	2.501	3.212
25	9	3.776	3.289
26	28	4.128	3.098
27	8	4.135	3.185
28	8	4.624	3.086
29	19	5.784	3.097
30	9	6.110	3.603
31*	44	10.316	3.710
32	9	11.652	3.813
33*	41	14.246	3.972
34	8	17.026	3.780
35	23	22.286	3.610
36	11	22.536	3.719
37	41	25.544	3.875
38	11	1.298	4.443
39	26	5.038	4.373
40	17	5.822	4.038
41	24	6.312	4.097
42	22	11.388	4.084
43	19	17.896	4.607
44	12	19.682	4.607
45	34	5.843	5.932
46*	55	7.366	5.544
47	16	8.857	5.209
48	30	14.998	5.260
49*	38	21.433	5.412
50	8	21.713	5.296
51	43	0.300	6.057
52	9	2.924	6.695
53	13	7.304	6.435
54	13	8.296	6.823
55	18	10.282	6.594
56	34	10.678	6.818

57	13	11.080	6.712	131	19	12.758	15.893
58	27	20.190	6.421	132	30	13.594	15.567
59	20	24.006	6.380	133	23	16.023	15.390
60	11	1.818	7.168	134	8	17.178	15.790
61	13	6.652	7.380	135	8	18.392	15.324
62	28	10.157	7.476	136	15	18.964	15.146
63	20	16.124	7.292	137	18	21.056	15.354
64	11	17.898	7.184	138	37	25.840	15.501
65	18	20.450	7.470	139	25	2.602	16.108
66	25	21.220	7.205	140	20	15.068	16.276
67	15	21.244	7.230	141	12	15.698	16.942
68	29	24.923	7.270	142*	43	16.424	16.408
69	14	25.246	7.081	143	17	17.616	16.189
70	35	25.901	7.197	144	9	18.415	16.554
71	8	0.225	8.584	145	26	20.530	16.727
72	8	3.606	8.098	146	10	20.802	16.362
73	23	4.432	8.024	147*	45	21.158	16.782
74	23	5.657	8.356	148	15	24.968	16.428
75	13	8.602	8.182	149	8	0.862	17.850
76	8	13.092	8.065	150*	68	1.197	17.340
77	12	15.866	8.601	151	15	3.858	17.660
78	19	21.868	8.174	152	23	6.541	17.717
79	12	2.049	9.305	153	10	7.841	17.394
80	15	2.859	9.812	154	22	10.300	17.470
81	16	5.984	9.148	155	11	12.707	17.511
82	10	10.463	9.398	156	8	15.186	17.844
83	21	12.394	9.505	157	21	17.747	17.158
84	11	15.368	9.356	158	26	19.290	17.398
85	8	16.870	9.839	159	28	20.510	17.720
86	15	20.652	9.173	160	26	22.154	17.640
87	20	22.087	9.704	161	8	24.550	17.973
88	19	2.678	10.972	162	13	0.220	18.208
89	21	3.288	10.112	163	37	0.785	18.514
90	30	6.242	10.029	164	23	4.882	18.962
91	9	10.153	10.844	165	10	5.986	18.738
92	8	10.400	10.385	166	15	10.748	18.946
93	22	13.910	10.752	167	11	11.256	18.896
94	12	16.158	10.168	168	24	14.066	18.592
95	14	19.273	10.904	169	9	20.172	18.980
96	12	24.031	10.516	170	9	23.968	18.036
97	8	24.984	10.475	171	21	1.678	19.210
98	8	2.204	11.898	172	19	2.636	19.617
99	19	3.314	11.923	173	8	3.296	19.063
100	12	9.180	11.448	174	12	4.098	19.917
101	25	10.966	11.520	175	11	5.948	19.088
102	11	12.580	11.914	176	25	11.998	19.624
103	33	13.790	11.980	177	30	16.184	19.902
104	23	14.620	11.976	178	8	16.772	19.592
105	11	17.700	11.591	179	13	24.770	19.037
106	12	3.350	12.284	180	8	0.706	20.765
107*	41	5.348	12.272	181	19	0.908	20.868
108	10	10.870	12.244	182	15	3.816	20.004
109	25	18.081	12.251	183	32	3.865	20.964
110	15	20.188	12.086	184	12	4.540	20.715
111	8	20.870	12.209	185	14	6.333	20.914
112	10	3.440	13.838	186	8	8.560	20.344
113	20	4.426	13.860	187	30	9.426	20.058
114	8	6.953	13.612	188	10	9.732	20.394
115	23	7.192	13.328	189	38	10.604	20.394
116	30	7.449	13.980	190	13	15.302	20.556
117	14	8.124	13.597	191	24	16.666	20.663
118	15	10.522	13.172	192	23	16.697	20.792
119	20	22.283	13.630	193	8	17.604	20.029
120	13	25.352	13.055	194*	59	24.457	20.930
121	10	3.066	14.167	195	16	2.572	21.642
122	11	6.370	14.030	196	30	3.325	21.064
123	30	9.176	14.310	197	8	3.894	21.537
124	9	14.360	14.885	198	22	7.852	21.323
125	16	5.170	15.582	199	8	7.942	21.562
126*	42	5.553	15.946	200	10	10.196	21.960
127	10	8.166	15.528	201	20	14.362	21.238
128	33	8.600	15.638	202	28	14.650	21.198
129	22	8.702	15.580	203*	40	15.414	21.874
130	28	9.804	15.572	204	19	15.668	21.653

R.A. 0<sup>h</sup> 12<sup>m</sup>

Plate 797; 1916 Nov. 16.

Provisional Constants.

A B C  
-02573 +00062 +1969D E F  
-00045 -02576 -2549

Mag. = 17.6 - 1.09√d

No.	d	x	y
300	12	8.142	0.004
301	13	8.782	0.093

205	8	17.160	21.571	302	8	20.500	0.682
206	18	20.390	21.894	303	10	21.950	0.824
207	29	21.308	21.864	304	12	25.482	0.371
208	14	22.683	21.962	305*	53	1.420	1.696
209	29	23.994	21.372	306	17	1.796	1.798
210*	62	24.530	21.131	307*	51	2.406	1.346
211	9	0.026	22.974	308	12	4.593	1.295
212	17	2.803	22.797	309*	63	12.344	1.060
213	39	3.766	22.578	310	21	22.626	1.522
214	8	9.587	22.560	311	31	5.372	2.218
215	11	9.728	22.279	312	13	5.608	2.288
216	14	11.577	22.322	313	41	8.248	2.845
217	28	14.029	22.230	314	15	10.041	2.037
218*	40	14.174	22.426	315	17	11.780	2.071
219	18	15.538	22.108	316	11	12.652	2.492
220	27	22.087	22.320	317	17	13.495	2.496
221	17	22.161	22.012	318	12	14.516	2.599
222	10	23.320	22.642	319	9	15.456	2.851
223	28	24.600	22.492	320	10	19.257	2.130
224	10	3.364	23.688	321*	60	21.974	2.116
225	14	7.169	23.476	322	14	25.112	2.673
226	98	7.987	23.536	323*	51	3.004	3.860
227	17	8.726	23.262	324	41	13.040	3.220
228	20	17.574	23.165	325	10	13.686	3.278
229	15	22.552	23.088	326*	42	20.741	3.524
230	29	0.316	24.504	327*	63	23.220	3.303
231	20	1.721	24.151	328	13	25.627	3.529
232	18	4.636	24.182	329	10	1.010	4.100
233	8	6.578	24.684	330	13	4.026	4.186
234	26	11.424	24.263	331	10	9.501	4.799
235	23	11.786	24.537	332	12	11.680	4.226
236	10	18.002	24.770	333	12	11.680	4.162
237	37	19.716	24.298	334	10	11.945	4.674
238	12	20.947	24.150	335	12	12.920	4.126
239	29	23.984	24.342	336	19	13.270	4.400
240	31	24.362	24.370	337	14	24.070	4.530
241	17	1.665	25.130	338	32	3.925	5.818
242	26	2.790	25.605	339*	44	6.386	5.975
243	9	2.884	25.417	340	14	10.210	5.153
244	78	11.492	25.736	341	14	12.536	5.865
245	25	16.328	25.906	342	19	19.536	5.248
246	10	18.242	25.620	343	19	25.540	5.320
247	53	20.521	25.490	344	11	5.598	6.332
				345	18	10.240	6.237
				346	13	10.546	6.892
				347	14	14.525	6.000
				348	8	17.200	6.144
				349	15	17.224	6.046
				350	8	17.920	6.136
				351	27	2.410	7.262
				352	12	2.731	7.067
				353	38	3.386	7.178
				354*	62	7.067	7.875
				355	14	11.974	7.710
				356	15	15.244	7.716
				357	9	16.310	7.090
				358	27	17.780	7.650
				359*	54	18.218	7.188
				360	18	23.178	7.180
				361	38	4.258	8.080
				362	20	4.770	8.610
				363	21	6.918	8.700
				364	12	8.166	8.630
				365	8	8.748	8.276
				366	14	23.690	8.199
				367*	52	23.930	8.674
				368	8	0.051	9.417
				369*	44	7.278	9.864
				370	11	9.883	9.500
				371	12	10.672	9.349
				372	22	10.930	9.674
				373	25	11.594	9.574
				374	20	12.394	9.619
				375	11	12.550	0.816

R.A. 0<sup>h</sup> 12<sup>m</sup>

Plate 797 ; 1916 Nov. 16.

Provisional Constants.

A

B

C

—0.2573 + .00062 + .1969

D

E

F

—0.0045 — .02576 — .2549

Mag. = 17.6 — 1.09√d

No.	d	x	y
300	12	8.142	0.004
301	13	8.782	0.003



376	15	15.500	9.930	450*	57	6.323	20.740	602	37	17.200	0.166	676	11	4.593	13.285	750	12	24.692	24.200
377	13	17.538	9.044	451	15	6.772	20.146	603*	51	20.038	0.657	677*	47	6.510	13.698	751	37	24.880	24.716
378	8	18.757	9.319	452	10	8.600	20.595	604	35	0.188	1.387	678	19	8.568	13.218	752	11	1.006	25.662
379	21	19.080	9.144	453	19	10.800	20.574	605	10	4.040	1.860	679*	46	9.512	13.622	753	9	5.114	25.118
380	17	23.470	9.509	454	10	19.537	20.041	606	29	7.854	1.719	680	14	13.516	13.004	754	35	10.462	25.757
381	66	25.553	9.665	455	8	20.317	20.716	607	8	18.800	1.606	681	21	14.469	13.528	755	40	14.648	25.384
382	11	1.547	10.512	456	12	20.852	20.342	608	41	19.636	1.587	682	40	23.523	13.572	756	37	23.505	25.535
383	16	4.596	10.874	457	12	25.084	20.054	609	33	2.686	2.516	683*	42	6.938	14.950	757	13	25.086	25.468
384	12	12.376	10.168	458	13	0.284	21.964	610	34	8.497	2.807	684	12	8.081	14.532				
385	15	13.768	10.536	459	33	1.588	21.367	611	25	10.392	2.823	685	27	14.116	14.722				
386	13	18.907	10.424	460*	77	2.115	21.126	612	25	12.035	2.065	686	9	25.040	14.848				
387	16	20.618	10.787	461	16	3.642	21.038	613	20	14.118	2.281	687	25	7.783	15.150				
388*	47	21.272	10.280	462*	51	5.570	21.798	614	32	14.276	2.152	688	20	14.975	15.431				
389	33	4.501	11.404	463*	53	7.344	21.959	615	42	17.550	2.296	689	8	20.868	15.818				
390	11	8.725	11.277	464	14	17.064	21.864	616	22	17.894	2.518	690	10	21.494	15.706				
391	17	9.290	11.912	465	16	17.419	21.616	617	11	18.474	2.933	691	8	22.818	15.624				
392	24	18.628	11.855	466	10	0.923	22.644	618	10	22.904	2.690	692	9	2.978	16.946				
393	13	18.750	11.884	467	36	2.204	22.482	619*	48	0.792	3.163	693*	38	7.536	16.809				
394	19	19.224	11.478	468	10	9.210	22.179	620	27	3.212	3.367	694*	40	10.480	16.752				
395	24	19.637	11.675	469	14	0.162	23.097	621	33	7.436	3.183	695*	50	10.566	16.055				
396	13	21.202	11.840	470	10	3.730	23.656	622*	46	11.726	3.973	696	17	15.126	16.188				
397	10	3.965	12.603	471	10	6.950	23.916	623	16	12.047	3.203	697	9	16.362	16.201				
398	12	4.322	12.960	472	14	10.870	23.684	624	28	12.345	3.116	698	39	17.688	16.602				
399	17	5.816	12.465	473	22	12.192	23.151	625*	40	15.844	3.587	699	11	17.810	16.724				
400	12	7.675	12.252	474	11	12.345	23.014	626	30	17.458	3.253	700	43	24.428	16.743				
401	11	10.173	12.994	475	19	21.654	23.914	627	38	25.190	3.069	701	43	24.596	16.966				
402	39	11.232	12.228	476	32	1.601	24.340	628	16	1.658	4.384	702	9	4.618	17.200				
403	22	16.560	12.480	477	35	1.977	24.364	629	12	5.476	4.728	703	27	14.872	17.592				
404	10	2.885	13.040	478	18	6.476	24.172	630	27	9.109	4.365	704	40	19.186	17.475				
405	11	14.600	13.540	479	12	9.276	24.857	631	37	9.170	4.192	705	21	22.842	17.235				
406	10	21.626	13.346	480	26	9.608	24.486	632*	42	14.516	4.592	706	11	6.195	18.476				
407	10	24.480	13.288	481	21	11.788	24.549	633	40	19.258	4.564	707	39	10.329	18.642				
408	36	24.535	13.723	482	15	16.242	24.845	634	8	2.568	5.173	708	26	20.585	18.169				
409	14	7.364	14.642	483	12	19.556	24.966	635	35	3.135	5.159	709*	44	20.603	18.170				
410	23	9.305	14.440	484	14	20.704	24.626	636*	41	7.042	5.488	710	14	20.813	18.931				
411	13	11.216	14.642	485	52	21.142	24.494	637	12	10.940	5.294	711	15	0.300	19.662				
412	39	12.416	14.174	486	22	24.898	24.734	638	10	11.007	5.954	712	16	2.826	19.894				
413	34	13.372	14.925	487	100	4.086	25.335	639	10	12.908	5.942	713	10	12.506	19.875				
414	12	14.250	14.574	488	10	11.400	25.836	640	39	18.224	5.316	714	8	15.866	19.878				
415	10	15.101	14.098	489	60	15.108	25.550	641*	82	7.309	6.394	715	38	18.217	19.438				
416	15	22.075	14.981	490	10	15.664	25.476	642	10	21.713	6.574	716	8	0.905	20.702				
417	12	22.260	14.698	491	16	18.318	25.434	643	36	0.793	7.038	717*	41	5.839	20.116				
418	29	23.301	14.026	492	9	23.210	25.804	644	9	5.196	7.867	718	8	7.235	20.326				
419	42	3.388	15.484					645	8	8.408	7.305	719	32	7.514	20.062				
420*	49	5.660	15.101					646*	58	12.457	7.374	720	17	8.006	20.124				
421	12	9.150	15.072					647	21	19.182	7.754	721	16	10.976	20.897				
422	13	11.812	15.998					648	29	20.020	7.225	722	26	14.158	20.189				
423	31	17.545	15.024					649	21	22.779	7.186	723	9	14.926	20.860				
424	8	21.258	15.022					650	24	1.314	8.055	724	8	18.654	20.826				
425	14	2.526	16.417					651*	42	1.556	8.529	725	15	23.246	20.209				
426	31	3.684	16.800					652*	49	14.233	8.609	726	39	7.750	21.590				
427*	82	7.804	16.074					653	15	1.105	9.368	727	23	14.474	21.064				
428	21	9.070	16.716					654*	58	3.184	9.504	728	9	16.200	21.476				
429	8	12.309	16.410					655*	40	11.366	9.700	729*	43	22.910	21.353				
430	8	16.206	16.495					656*	42	15.585	9.304	730*	45	24.136	21.296				
431	10	20.987	16.572					657*	41	22.884	9.640	731	38	16.456	22.894				
432	16	4.300	17.248					658	40	6.994	10.996	732*	44	20.442	22.632				
433	8	13.606	17.324					659	29	7.513	10.804	733	8	1.422	23.350				
434	15	16.836	17.730					660	29	7.620	10.826	734	9	4.434	23.334				
435	11	25.265	17.112					661	24	7.666	11.454	735	17	7.918	23.132				
436	11	4.840	18.969					662	24	14.633	11.610	746	18	8.843	23.316				
437	47	6.202	18.525					663*	82	20.206	11.846	737	32	10.550	23.865				
438	13	8.557	18.998					664	17	22.376	11.394	738	19	11.956	23.066				
439	18	17.460	18.152					665	39	25.678	11.377	739	59	13.834	23.732				
440	11	19.343	18.485					666	8	5.030	12.880	740	36	16.246	23.690				
441	11	2.349	19.027					667	35	6.080	12.278	741	32	19.808	23.450				
442	12	3.975	19.664					668	25	6.672	12.896	742	36	2.694	24.576				
443	14	6.818	19.334					669	9	8.474	12.919	743	27	5.652	24.576				
444	16	10.519	19.147					670*	41	9.394	12.342	744	41	11.374	24.536				
445*	44	17.390	19.286					671	42	11.762	12.222	745	8	14.457	24.098				
446	17	18.548	19.027					672	29	0.984	13.884	746	40	15.400	24.741				
447	10	21.400	19.642					673	14	2.155	13.135	747	8	17.386	24.936				
448	12	22.561	19.796					674	38	2.211	13.570	748	18	17.930	24.466				
449*	60	2.043	20.923					675	8	4.100	13.234	749	9	20.578	24.767				

**R.A. 0<sup>h</sup> 28<sup>m</sup>**  
 Plate 803; 1916 Nov. 17.  
*Provisional Constants.*  

A	B	C
-0.02547	+0.00620	+0.0951

D	E	F
-0.00650	-0.02533	-0.2721

 $Mag. = 17.0 - 1.09\sqrt{d}$

**R.A. 0<sup>h</sup> 20<sup>m</sup>**  
 Plate 802



839	14	18.199	5.994	913	30	19.424	15.978	987	17	13.268	25.194	1137	9	2.264	8.956	1212	13	3.137	19.808
840	29	19.280	5.822	914	26	21.293	15.814	988	19	16.360	25.308	1138	24	3.053	8.157	1213	42	4.176	19.191
841	20	22.050	5.250	915	25	25.431	15.830	989	32	16.689	25.246	1139	38	6.392	8.637	1214	10	4.557	19.784
842	16	24.092	5.094	916	39	2.046	16.880	990	60	22.001	25.883	1140	34	10.271	8.822	1215	36	5.766	19.885
843	60	25.493	5.008	917	28	6.646	16.234					1141	10	15.392	8.718	1216	36	6.952	19.776
844	19	2.122	6.758	918*	60	7.966	16.414					1142*	46	17.844	8.771	1217	35	6.995	19.797
845	23	4.451	6.600	919	37	16.044	16.877					1143	43	0.658	9.529	1218	12	8.023	19.376
846*	72	5.470	6.168	920	26	17.138	16.611					1144	10	0.855	9.604	1219	12	9.280	19.184
847	26	12.584	6.539	921	24	20.640	16.056					1146	13	2.881	9.186	1220	40	9.944	19.841
848	23	12.884	6.536	922	36	21.796	16.984					1147	12	3.600	9.644	1221	8	12.676	19.790
849	38	13.331	6.816	923	18	25.052	16.648					1148	10	11.730	9.437	1222	38	19.178	19.066
850	39	16.530	6.774	924	32	0.469	17.396					1149	8	20.066	9.784	1223	38	22.090	19.890
851*	59	20.792	6.718	925	41	2.216	17.102					1150	50	0.030	10.366	1224	46	23.451	19.098
852	32	0.246	7.354	926	36	4.201	7.053					1151	46	1.264	10.913	1225	24	24.302	19.888
853	14	12.876	7.500	927	24	12.894	17.346					1152*	52	4.906	10.203	1226	41	6.074	20.475
854	30	15.387	7.964	928	37	13.116	17.976					1153	17	17.266	10.077	1227	40	7.228	20.177
855	36	18.306	7.067	929	23	13.698	17.315					1154*	47	20.660	10.930	1228	36	12.716	20.486
856	34	25.476	7.826	930	26	14.550	17.926					1155	21	23.156	10.440	1229	20	14.000	20.350
857	26	4.473	8.924	931	23	14.566	17.934					1156	20	24.785	10.072	1230	31	17.512	20.520
858	17	6.462	8.733	932	32	14.585	17.887					1157	19	3.335	11.874	1231	43	22.266	20.114
859	26	15.313	8.752	933	26	15.170	17.124					1158*	53	9.360	11.143	1232	30	7.414	21.614
860*	40	19.442	8.186	934	21	20.101	17.492					1159	37	12.816	11.602	1233	20	8.160	21.174
861	55	22.894	8.108	935	31	11.955	18.752					1160	37	14.602	11.098	1234	29	9.645	21.780
862	22	24.681	8.625	936	19	18.120	18.073					1161	17	14.624	11.216	1235	35	10.076	21.884
863	34	25.298	8.856	937	25	20.539	18.624					1162*	45	14.727	11.690	1236	43	14.726	21.394
864*	52	0.386	9.802	938	22	6.715	19.089					1163	17	15.111	11.157	1237	18	18.234	21.624
865	16	4.899	9.666	939	14	8.186	19.792					1164	11	3.550	12.812	1238	10	18.762	21.084
866	20	9.134	9.517	940	20	8.208	19.934					1165	38	5.182	12.408	1239	44	19.780	21.076
867	17	17.546	9.373	941	15	13.141	19.767					1166	9	8.666	12.501	1240	40	21.900	21.065
868	28	19.126	9.864	942	26	16.276	19.742					1167	10	15.366	12.370	1241	47	22.556	21.898
869	14	21.084	9.582	943	20	20.820	19.006					1168	17	22.275	12.666	1242*	49	23.870	21.720
870	37	23.076	9.186	944	25	20.826	19.108					1169	37	22.624	12.513	1243*	46	12.610	22.485
871	26	23.272	9.262	945	28	25.250	19.572					1170	84	25.974	12.242	1244	12	12.782	22.726
872	15	15.598	9.272	946	30	25.488	19.478					1171	29	2.834	13.610	1245	40	15.264	22.342
873*	59	22.444	9.019	947	30	0.922	20.364					1172	10	6.230	13.628	1246	44	17.231	22.458
874	44	23.670	9.573	948	19	6.832	20.920					1173	14	11.286	13.002	1247	8	22.528	22.580
875	18	25.094	10.583	949	30	15.074	20.160					1174	15	11.300	13.036	1248	9	8.580	23.565
876	37	3.210	11.496	950	19	15.176	20.960					1175*	88	11.318	13.338	1249	33	11.724	23.368
877	40	4.200	11.335	951*	40	17.280	20.156					1176	9	12.634	13.291	1250	37	16.700	23.980
878	16	10.294	11.124	952	23	20.531	20.009					1177	15	13.030	13.390	1251	36	18.438	23.010
879	12	14.680	11.484	953	38	21.896	20.886					1178	25	15.684	13.605	1252	11	23.258	23.754
880	26	15.232	11.982	954*	52	0.600	21.512					1179	38	18.276	13.588	1253	50	23.495	24.278
881	26	16.020	11.014	955*	53	1.824	21.436					1180	35	4.182	14.574	1254	44	23.656	24.850
882	33	18.568	11.934	956*	46	3.780	21.306					1181	9	4.248	14.500	1255	10	5.562	25.252
883	23	22.168	11.552	957	19	5.119	21.256					1182	15	6.678	14.936	1256	48	10.594	25.935
884	22	25.725	11.860	958	30	7.740	21.066					1183	17	11.880	14.209	1257	8	12.454	25.565
885	32	25.738	11.544	959	37	9.680	21.547					1184	12	12.432	14.982	1258	45	20.642	25.468
886	17	7.306	12.721	960	30	14.612	21.906					1185	16	14.971	14.005	1259	42	21.175	25.826
887	26	13.958	12.558	961	32	21.096	21.246					1186	21	15.182	14.534	1260	41	24.046	25.535
888	36	18.552	12.767	962	38	11.944	22.578					1187	42	22.258	14.589				
889	26	25.944	12.483	963	18	13.803	22.764					1188	24	22.560	14.720				
890	39	1.090	13.724	964	34	14.443	22.207					1189	8	0.454	15.036				
891	21	5.290	13.458	965	36	17.034	22.606					1190*	60	4.048	15.200				
892	21	7.044	13.296	966	18	20.508	22.373					1191*	42	11.501	15.120				
893*	58	20.773	13.689	967	26	22.756	22.124					1192	33	14.384	15.914				
894	36	25.225	13.278	968	36	6.858	23.944					1193	9	15.378	15.782				
895	26	2.630	14.974	969	38	7.150	23.764					1194*	56	17.297	15.514				
896	17	6.638	14.195	970	24	7.324	23.616					1195	45	24.978	15.484				
897	21	10.244	14.048	971	16	11.782	23.784					1196	44	25.000	15.485				
898	14	10.833	14.024	972	34	15.368	23.610					1197	9	2.684	16.982				
899	14	12.148	14.796	973	40	16.862	23.710					1198*	49	6.816	16.062				
900	38	14.749	14.926	974	26	19.520	23.174					1199	23	21.604	16.010				
901*	41	15.409	14.556	975	26	22.369	23.484					1200	11	21.665	16.266				
902	18	16.066	14.374	976	26	2.438	24.332					1201	42	22.700	16.384				
903*	46	20.816	14.866	977	37	2.630	24.844					1202	10	22.732	16.581				
904*	40	21.462	14.559	978	22	7.290	24.106					1203	41	22.970	16.922				
905	26	24.358	14.320	979	39	17.094	24.588					1204	48	23.496	16.815				
906	16	0.833	15.666	980	40	1.270	25.685					1205	45	3.930	17.456				
907	26	3.922	15.032	981	28	2.849	25.596					1206	9	5.314	17.140				
908	19	6.850	15.612	982	24	4.946	25.808					1207	27	5.686	17.178				
909	35	11.331	15.948	983	21	6.026	25.386					1208	47	17.610	17.806				
910	23	15.170	15.556	984	18	9.459	25.232					1209	48	3.666	18.363				
911	20	15.624	15.876	985	17	12.025	25.416					1210	11	15.966	18.600				
912*	42	15.965	15.526	986	26	12.424	25.378					1211	23	2.900	19.900				

R.A. 0<sup>h</sup> 36<sup>m</sup>

Plate 771; 1916 Oct. 20.



R.A. 0<sup>h</sup> 44<sup>m</sup>

Plate 792 ; 1916 Nov. 15.

## Provisional Constants.

A B C  
-02527 +00526 +2794

D E F  
-00519 -02569 -2804

Mag. = 16.9 - 1.09√d

No.	d	x	y
1300	8	0.754	0.698
1301	10	2.168	0.334
1302	12	5.588	0.189
1303	19	7.580	0.493
1304	12	16.227	0.217
1305	37	16.348	0.401
1306	23	21.488	0.905
1307	10	22.378	0.086
1308	20	22.966	0.336
1309	22	25.054	0.704
1310	16	0.334	1.710
1311	8	2.296	1.136
1312	15	8.264	1.844
1313	8	8.360	1.739
1314	10	12.250	1.375
1315	20	15.148	1.752
1316	10	18.049	1.206
1317	41	21.545	1.510
1318	9	25.094	1.500
1319	10	25.388	1.186
1320	10	7.839	2.618
1321	17	17.209	2.535
1322	24	21.760	2.134
1323	23	21.990	2.689
1324	20	23.767	2.984
1325	15	2.788	3.482
1326	43	4.174	3.002
1327	8	5.020	3.919
1328	18	8.219	3.503
1329	11	9.160	3.218
1330	9	12.700	3.293
1331	12	16.996	3.126
1332	9	19.364	3.073
1333	12	0.080	4.144
1334	21	2.586	4.233
1335	40	6.928	4.536
1336	9	10.585	4.389
1337	14	11.384	4.697
1338	9	13.200	4.601
1339	12	24.530	4.460
1340	10	25.455	4.400
1341	15	3.616	5.898
1342	13	14.602	5.967
1343	13	14.832	5.834
1344	12	15.275	5.323
1345	10	15.947	5.965
1346	36	16.278	5.590
1347*	60	16.583	5.570
1348	28	17.639	5.750
1349	13	23.624	5.035
1350	10	2.142	6.575
1351	8	3.139	6.494
1352	15	4.203	6.866
1353*	47	6.918	6.912
1354	10	20.070	6.938
1355	9	20.395	6.793

1356	10	21.504	6.920
1357	10	3.950	7.067
1358	17	5.146	7.860
1359	9	5.718	7.070
1360	10	5.750	7.646
1361	22	7.652	7.550
1362	9	12.669	7.330
1363	8	19.689	7.036
1364	13	20.734	7.920
1365	11	0.752	8.736
1366	9	13.872	8.210
1367*	51	15.742	8.947
1368*	42	18.792	8.612
1369	12	21.638	8.801
1370	16	24.008	8.652
1371	21	2.563	9.902
1372	30	6.387	9.524
1373	14	10.980	9.504
1374	10	14.080	9.145
1375	22	17.450	9.037
1376	11	20.112	9.709
1377	10	21.650	9.980
1378	9	21.900	9.170
1379	11	25.400	9.898
1380	22	0.937	10.297
1381	12	6.623	10.092
1382	10	12.450	10.433
1383	27	19.910	10.895
1384	21	6.143	11.780
1385	10	9.057	11.602
1386	10	11.944	11.365
1387*	43	13.126	11.584
1388	43	13.454	11.549
1389	23	0.086	12.531
1390	28	0.430	12.374
1391*	113	3.765	12.062
1392	13	7.312	12.360
1393	13	13.145	12.084
1394	12	13.213	12.167
1395	15	19.464	12.585
1396	12	21.637	12.264
1397	10	21.821	12.306
1398	8	22.920	12.761
1399	39	24.480	12.144
1400	10	25.400	12.357
1401	15	25.720	12.245
1402	33	5.960	13.461
1403	27	6.690	13.720
1404	12	13.494	13.427
1405	11	13.902	13.274
1406	9	17.448	13.420
1407	17	21.492	13.588
1408	9	22.397	13.586
1409	17	25.633	13.080
1410	37	0.095	14.457
1411	15	0.398	14.583
1412*	83	4.608	14.732
1413	8	5.660	14.518
1414	39	10.425	14.806
1415	15	12.852	14.126
1416	10	15.585	14.444
1417	11	17.906	14.108
1418	17	18.557	14.004
1419	21	19.884	14.215
1420	36	2.826	15.312
1421	34	2.848	15.316
1422	10	15.659	15.477
1423	13	17.812	15.338
1424	22	18.370	15.670
1425	20	24.788	15.274
1426	26	0.560	16.244
1427	11	0.596	16.440
1428	27	0.836	16.782
1429	37	1.360	16.666

1430	36	4.356	16.171
1431	17	13.552	16.566
1432	8	20.055	16.364
1433	16	22.450	16.316
1434	13	4.700	17.355
1435	12	5.596	17.086
1436	9	6.688	17.873
1437	13	11.816	17.640
1438	10	11.952	17.418
1439	32	15.798	17.038
1440	9	16.011	17.550
1441	9	19.348	17.952
1442	32	1.347	18.948
1443	10	9.025	18.512
1444	8	10.798	18.096
1445	27	10.937	18.488
1446	29	16.222	18.624
1447	20	17.732	18.749
1448	11	19.028	18.420
1449	10	22.456	18.240
1450	20	25.074	18.446
1451	28	0.179	19.975
1452	9	2.135	19.098
1453	14	2.210	19.729
1454	34	6.070	19.048
1455	9	9.672	19.940
1456	22	11.586	19.702
1457	24	13.406	19.170
1458	10	17.450	19.642
1459*	38	20.378	19.580
1460*	42	20.846	19.540
1461	11	1.560	20.764
1462	10	8.310	20.860
1463	10	14.911	20.558
1464	13	16.350	20.114
1465	23	16.568	20.650
1466	12	17.156	20.850
1467	10	19.753	20.840
1468	23	22.510	20.758
1469	35	0.491	21.760
1470*	43	1.798	21.566
1471*	43	5.762	21.230
1472	9	6.080	21.043
1473	14	10.532	21.337
1474	13	17.167	21.022
1475	22	19.826	21.074
1476	14	25.744	21.907
1477	10	0.472	22.440
1478	12	1.779	22.515
1479	10	3.182	22.495
1480	11	4.196	22.402
1481	16	10.652	22.611
1482	15	1.220	23.608
1483	36	7.632	23.549
1484	14	10.214	23.718
1485	10	11.900	23.200
1486	17	13.477	23.783
1487	43	1.458	24.129
1488	30	1.631	24.699
1489	39	4.584	24.603
1490	8	9.131	24.307
1491	10	15.368	24.050
1492	10	16.988	24.778
1493	12	18.383	24.364
1494	39	23.249	24.516
1495	27	2.029	25.380
1496	15	10.170	25.570
1497	60	12.380	25.118
1498	10	13.378	25.156
1499	17	16.662	25.778
1500	29	23.506	25.064
1501	24	23.780	25.478

R.A. 0<sup>h</sup> 52<sup>m</sup>

Plate 786 ; 1916 Nov. 14.

## Provisional Constants.

A B C  
-02554 +00525 +0610

D E F  
-00526 -02552 -1396

Mag. = 16.2 - 1.09√d

No.	d	x	y
1600	15	0.258	0.606
1601	13	2.350	0.951
1602	10	5.011	0.572
1603*	48	6.040	0.754
1604	8	10.417	0.393
1605	24	11.546	0.415
1606	10	14.515	0.175
1607	40	16.286	0.855
1608	10	21.898	0.770
1609	10	2.400	1.746
1610	10	2.690	1.427
1611	14	9.603	1.596
1612	8	17.262	1.850
1613	26	19.638	1.296
1614	15	19.866	1.882
1615	11	23.867	1.766
1616	11	4.400	2.014
1617	10	9.117	2.825
1618	21	18.899	2.362
1619	8	19.216	2.940
1620	17	21.399	2.992
1621	11	25.796	2.700
1622	13	1.084	3.241
1623*	38	3.460	3.069
1624	25	10.584	3.597
1625*	60	16.084	3.388
1626*	60	16.096	3.372
1627	11	16.825	3.591
1628	9	18.299	3.643
1629	10	1.864	4.715
1630	10	2.785	4.641
1631	35	12.024	4.554
1632	8	12.903	4.010
1633*	60	14.901	4.593
1634	15	16.820	4.486
1635	8	18.984	4.615
1636	8	21.266	4.845
1637	11	0.960	5.297
1638	12	4.866	5.555
1639	11	5.194	5.271
1640	9	7.102	5.789
1641	8	10.926	5.276
1642	12	11.084	5.927
1643	22	19.542	5.702
1644	18	12.828	6.026
1645	8	19.574	6.398
1646	8	21.751	6.290
1647	11	23.174	6.550
1648	8	25.605	6.056
1649	8	7.376	7.204
1650	9	7.747	7.818
1651	9	8.494	7.731
1652	8	8.525	7.985
1653	8	8.880	7.892
1654	22	11.744	7.892
1655*	46	13.642	7.183

1656	12	16.552	7.580
1657	13	16.560	7.803
1658	14	1.380	8.906
1659	13	9.914	8.782
1660	16	10.346	8.900
1661	9	13.375	8.053
1662	9	14.346	8.601
1663	21	14.492	8.744
1664	14	15.410	8.759
1665	10	16.263	8.836
1666	12	22.464	8.622
1667	10	25.392	8.650
1668*	56	4.762	9.224
1669	9	11.596	9.754
1670	9	11.600	9.769
1671	8	12.697	9.536
1672	12	13.500	9.956
1673	14	18.478	9.464
1674*	28	19.761	9.825
1675	8	22.904	9.480
1676	10	2.785	10.141
1677	8	3.882	10.311
1678	13	4.903	10.902
1679	10	5.085	10.875
1680	13	6.844	10.228
1681	10	8.189	10.573
1682	16	8.305	10.915
1683	16	8.779	10.383
1684	9	8.904	10.198
1685	9	10.225	10.556
1686	12	12.266	10.759
1687	11	14.225	10.484
1688	8	18.482	10.176
1689	52	25.067	10.484
1690	60	25.905	10.126
1691	9	9.005	11.920
1692*	42	9.618	11.433
1693	10	20.535	11.455
1694	8	23.674	11.408
1695	11	25.888	11.633
1696	24	1.884	12.394
1697	10	2.810	12.598
1698	12	3.128	12.484
1699*	40	4.974	12.270
1700	13	11.426	12.460
1701	14	23.472	12.027
1702	14	3.050	13.318
1703	25	4.030	13.006
1704	25	4.045	13.328
1705	8	9.854	13.941
1706	9	22.777	13.600
1707	26	25.790	13.178
1708	9	7.833	14.144
1709	15	11.558	14.909
1710*	44	21.662	14.550
1711	8	24.923	14.631
1712	12	25.304	14.120
1713	14	2.225	15.524
1714	17	10.624	15.806
1715	14	20.168	15.403
1716	8	20.753	15.666
1717	9	23.380	15.100
1718	8	1.792	16.954
1719	21	3.923	16.054
1720	14	7.282	16.888
1721*	22	13.252	16.533
1722	19	16.838	16.454
1723*	37	16.972	16.453
1724	11	20.700	16.030
1725	10	21.100	16.116
1726	9	23.092	16.002
1727	8	24.474	16.712
1728	8	2.712	17.822
1729	9	10.718	17.309



1730	11	11.236	17.915	1804	11	8.217	25.992	1934*	41	20.742	6.056	2008	10	13.562	17.406
1731	8	11.484	17.934	1805	11	11.243	25.472	1935	23	11.229	7.106	2009	10	15.357	17.929
1732	18	13.726	17.834	1806	16	15.645	25.900	1936	23	18.750	7.070	2010	11	23.870	17.271
1733	9	19.525	17.999	1807	8	22.212	25.358	1937	13	21.549	7.030	2011	23	0.204	18.088
1734	12	22.628	17.576					1938*	35	21.728	7.484	2012	21	4.695	18.912
1735	19	23.879	17.252					1939	9	23.533	7.171	2013	12	4.768	18.145
1736	18	2.545	18.693					1940	28	25.670	7.118	2014	18	8.580	18.184
1737*	52	7.930	18.460					1941	12	0.206	8.336	2015	9	16.596	18.093
1738	17	18.385	18.134					1942	10	3.136	8.344	2016	10	24.551	18.566
1739	11	19.821	18.129					1943	8	3.932	8.003	2017	51	0.622	19.353
1740	10	22.037	18.578					1944*	39	6.041	8.371	2018	45	0.630	19.363
1741	20	22.398	18.375					1945	10	7.738	8.109	2019	44	0.778	19.492
1742	10	4.178	19.964					1946	12	18.888	8.866	2020	28	3.446	19.066
1743	20	4.729	19.115					1947	15	19.006	8.816	2021	8	14.703	19.273
1744	15	11.938	19.861					1948	13	19.442	8.475	2022	20	17.130	19.925
1745*	31	12.751	19.652					1949	22	19.710	8.914	2023	10	19.005	19.966
1746	9	16.504	19.586					1950*	38	20.297	8.934	2024	21	19.530	19.820
1747	40	22.808	19.636					1951	8	23.658	8.641	2025*	34	23.342	19.096
1748*	40	22.814	19.650					1952	11	0.658	9.195	2026	10	1.625	20.606
1749*	40	22.965	19.781					1953*	70	3.650	9.817	2027	8	5.185	20.270
1750	22	25.632	19.374					1954	20	7.104	9.674	2028	19	7.083	20.060
1751	9	5.271	20.109					1955*	60	2.815	10.182	2029	8	8.230	20.086
1752	13	6.142	20.070					1956	17	3.881	10.764	2030*	31	9.804	20.738
1753	9	6.440	20.377					1957	13	18.614	10.200	2031	9	12.972	20.635
1754	20	9.030	20.782					1958	15	1.237	11.735	2032	12	15.406	20.656
1755	16	9.231	20.104					1959	9	1.436	11.115	2033	10	0.946	21.630
1756	13	9.600	20.513					1960	12	3.651	11.324	2034	20	1.990	21.812
1757	11	15.426	20.284					1961	8	13.718	11.352	2035	13	4.418	21.342
1758	15	18.016	20.004					1962	12	14.109	11.151	2036	12	4.768	21.076
1759	9	21.935	20.514					1963	31	22.180	11.563	2037	11	10.708	21.328
1760	8	22.204	20.610					1964	36	3.560	12.871	2038	8	18.112	21.068
1761	8	23.638	20.872					1965	12	13.716	12.036	2039	13	1.067	22.092
1762	10	23.800	20.898					1966	9	15.274	12.628	2040	8	6.277	22.585
1763	14	0.002	21.026					1967	11	16.786	12.503	2041	19	6.422	22.520
1764	15	3.974	21.508					1968*	36	20.663	12.340	2042	8	12.196	22.134
1765	9	6.413	21.308					1969	10	0.550	13.313	2043	15	14.818	22.596
1766	10	8.304	21.995					1970	14	3.086	13.816	2044	12	16.065	22.916
1767	12	9.922	21.800					1971	8	3.897	13.638	2045	17	17.349	22.965
1768	9	12.426	21.898					1972	10	6.612	13.038	2046	8	20.457	22.664
1769	10	17.192	21.932					1973	11	8.094	13.553	2047	23	6.984	23.539
1770	9	23.114	21.922					1974	11	8.358	13.350	2048	13	8.600	23.821
1771	12	3.252	22.145					1975	16	8.460	13.586	2049	44	12.654	23.922
1772	8	3.883	22.926					1976*	40	9.056	13.465	2050	10	6.654	24.704
1773*	42	9.707	22.439					1977	13	9.654	13.286	2051	8	13.706	24.527
1774	8	11.998	22.598					1978*	32	14.974	13.706	2052	10	15.599	24.143
1775	20	14.638	22.994					1979	10	19.373	13.138	2053	11	1.768	25.300
1776	10	16.785	22.599					1980	36	22.034	13.188	2054	9	4.342	25.616
1777	10	19.264	22.514					1981	12	1.168	14.807	2055	10	4.903	25.764
1778	22	19.604	22.035					1982	8	2.706	14.330	2056	8	4.964	25.968
1779	12	23.232	22.384					1983	12	7.321	14.946	2057	10	5.276	25.275
1780	14	24.154	22.106					1984	9	10.573	14.226	2058	37	6.808	25.744
1781	13	5.920	23.834					1985	21	10.785	14.294	2059	29	9.602	25.135
1782	10	8.688	23.740					1986	9	16.972	14.914	2060	8	10.807	25.941
1783	10	16.927	23.914					1987	11	17.754	14.992	2061	33	11.440	25.943
1784	9	17.358	23.848					1988	10	25.252	14.024	2062	17	15.374	25.814
1785	9	19.246	23.264					1989	12	25.774	14.796	2063	27	19.160	25.645
1786	8	19.630	23.856					1990	8	0.884	15.717	2064	11	19.734	25.674
1787	10	21.032	23.526					1991	24	4.755	15.092	2065	42	21.370	25.916
1788	34	0.778	24.782					1992	15	8.726	15.766	2066	8	25.308	25.497
1789	51	7.667	24.034					1993	19	15.836	15.776				
1790	8	7.967	24.915					1994	23	16.998	15.200				
1791	21	8.843	24.529					1995	9	20.196	15.594				
1792	14	9.830	24.958					1996	21	1.680	16.957				
1793	30	9.848	24.974					1997	12	3.666	16.386				
1794	9	13.962	24.853					1998	21	5.902	16.904				
1795	18	14.709	24.734					1999	14	7.242	16.064				
1796	15	15.398	24.136					2000	19	11.338	16.074				
1797	19	15.614	24.473					2001	10	14.035	16.165				
1798	10	16.170	24.530					2002	21	18.005	16.464				
1799	42	18.100	24.442					2003	8	19.342	16.908				
1800	24	1.045	25.326					2004	12	19.550	16.605				
1801	22	1.322	25.737					2005	14	0.432	17.293				
1802	19	7.426	25.949					2006	14	4.185	17.937				
1803	13	7.485	25.046					2007	10	8.326	17.429				

R.A. 1<sup>h</sup> 8<sup>m</sup>

Plate 362; 1914 Dec. 9.

Provisional Constants.

A	B	C
-0.1738	+0.0584	-0.690

D	E	F
-0.00599	-0.1784	+0.3583

Mag. = 15.8 - 1.09√d

No.	d	x	y
2100	28	8.256	0.236
2101	9	17.964	0.905
2102	17	22.393	0.421
2103	19	23.352	0.808
2104*	33	4.270	1.222
2105	10	7.433	1.374
2106	30	17.145	1.634
2107	29	25.801	1.450
2108	8	2.134	2.216
2109	18	9.895	2.388
2110	24	18.173	2.586
2111	11	19.416	2.578
2112	26	21.300	2.448
2113	34	1.316	3.352
2114*	38	10.208	3.894
2115	13	13.594	3.040
2116*	37	14.972	3.155
2117	10	21.246	3.617
2118	37	25.155	3.058
2119*	41	7.336	4.074
2120	19	19.248	4.494
2121*	68	18.312	5.323
2122	15	2.892	6.810
2123	25	6.080	6.350
2124	14	6.320	6.013
2125	8	10.102	6.536
2126	24	12.342	6.424
2127	8	17.500	6.864
2128	9	18.959	6.775
2129	26	21.750	6.526
2130	11	7.591	7.794
2131	19	20.846	7.936
2132*	30	2.978	8.087
2133*	43	9.778	8.250
2134	22	10.363	8.083
2135	21	17.452	8.506
2136	19	24.084	8.720
2137	8	9.118	9.618
2138*	30	16.362	9.021
2139	14	20.498	9.464
2140	18	5.776	10.406
2141	10	6.850	10.296
2142	18	15.096	10.710
2143	14	17.357	10.510
2144	22	18.116	10.232
2145	26	25.239	10.662
2146*	56	5.604	11.202
2147	18	9.588	11.993
2148	15	15.346	11.798
2149	13	16.272	11.590
2150*	25	16.120	12.482



R.A. 1<sup>h</sup> 16<sup>m</sup>

Plate 787; 1916 Nov. 14.

Provisional Constants.

A	B	C
-0.2552	+0.0034	+2504

D	E	F
-0.0090	-0.2581	-0.0096

Mag. = 16.7 - 1.09√d

No.	d	x	y
2300	30	0.024	0.200
2301	36	0.974	0.586
2302	18	4.218	0.410
2303	42	9.918	0.634
2304	8	18.954	0.783
2305*	43	3.410	1.206
2306	24	4.352	1.244
2307	41	8.104	1.196
2308	12	15.885	1.238
2309	16	16.172	1.776
2310	38	16.328	1.344
2311	19	18.348	1.499
2312	10	24.783	1.570
2313*	45	2.774	2.800
2314	40	8.878	2.321
2315	41	13.510	2.517
2316	10	24.056	2.055
2317	9	24.072	2.059
2318	25	2.428	3.040
2319	18	7.108	3.746
2320	39	9.055	3.686
2321	9	14.823	3.312
2322	37	20.046	3.415
2323	40	20.804	3.988
2324*	80	23.493	3.088
2325	8	24.272	3.153
2326*	41	3.733	4.890
2327	25	7.891	4.078
2328*	81	10.244	4.899
2329	10	10.874	4.698
2330	25	16.356	4.746
2331	28	15.886	5.070
2332	16	19.442	5.634
2333	38	5.294	6.784
2334	10	14.042	6.246
2335	29	16.054	6.838
2336	16	15.567	6.310
2337	35	22.777	6.702
2338	13	12.870	7.457
2339	41	22.656	7.370
2340	38	1.734	8.432
2341	37	6.968	8.762
2342	20	9.534	8.004
2343	29	13.780	8.409
2344	34	20.792	8.574
2345	15	0.543	9.194
2346*	42	12.116	9.296
2347*	46	20.357	9.674
2348	21	20.617	9.574
2349	35	21.618	9.724
2350	42	23.128	9.884
2351	40	2.892	10.354
2352	21	3.857	10.966
2353	8	9.267	10.304
2354	20	9.656	10.556
2355	20	17.096	10.624

2356	38	18.019	10.490
2357	11	22.988	10.672
2358	9	4.932	11.465
2359	32	11.439	11.339
2360	38	18.635	11.565
2361	17	23.048	11.631
2362	16	23.614	11.640
2363	38	24.998	11.204
2364*	43	3.800	12.300
2365	41	14.680	12.732
2366*	78	18.900	12.726
2367	16	21.894	12.320
2368	11	22.755	12.667
2369	38	22.762	12.880
2370*	43	23.394	12.256
2371	35	1.691	13.532
2372	34	13.122	13.842
2373	21	17.116	13.370
2374*	52	18.918	13.644
2375	40	20.744	13.126
2376	8	24.101	13.596
2377	42	0.610	14.459
2378	17	12.320	14.905
2379	15	15.020	14.300
2380	11	21.075	14.283
2381	13	1.133	15.050
2382*	43	1.264	15.468
2383	14	1.296	15.800
2384	9	3.032	15.600
2385	12	5.844	15.465
2386	25	10.488	15.400
2387	21	12.036	15.532
2388*	40	14.362	15.784
2389	30	15.051	15.599
2390	36	24.924	15.460
2391	14	6.302	16.500
2392	27	7.476	16.025
2393	32	10.402	16.491
2394	27	12.556	16.846
2395	20	14.625	16.579
2396	13	20.192	16.216
2397	34	22.390	16.200
2398	27	9.392	17.634
2399*	40	10.610	17.025
2400*	40	11.496	17.185
2401	14	12.158	17.616
2402	35	16.026	17.046
2403	29	17.036	17.146
2404	31	19.876	17.600
2405	44	24.856	17.229
2406	47	25.034	17.724
2407	34	2.105	18.266
2408	32	3.866	18.584
2409	17	16.084	18.586
2410	17	16.614	18.024
2411	8	25.542	18.867
2412*	67	2.052	19.869
2413	34	5.377	19.554
2414*	44	9.960	19.240
2415	36	16.484	19.826
2416	36	18.472	19.498
2417	17	19.745	19.538
2418	22	20.154	19.012
2419	11	20.658	19.033
2420	34	22.846	19.131
2421	39	1.522	20.834
2422	31	16.727	20.829
2423	39	23.990	20.634
2424	12	15.738	21.747
2425	15	16.246	21.126
2426	22	18.402	21.300
2427	38	18.534	21.672
2428	13	19.995	21.772
2429	10	21.665	21.726

2430	31	24.546	21.166
2431	40	24.401	22.021
2432	8	24.664	22.402
2433	8	0.359	23.185
2434	37	6.639	23.671
2435	12	10.166	23.841
2436	10	13.183	23.269
2437	27	15.084	23.260
2438	9	22.646	23.471
2439	12	0.665	24.597
2440	36	4.369	24.060
2441	13	7.174	24.284
2442	29	7.187	24.266
2443	38	18.692	24.957
2444	40	21.814	24.294
2445	46	3.461	25.146
2446	39	3.683	25.394
2447	29	11.249	25.750
2448	23	16.510	25.034
2449	31	23.124	25.273

R.A. 1<sup>h</sup> 24<sup>m</sup>

Plate 798; 1916 Nov. 16.

Provisional Constants.

A	B	C
-0.2548	+0.00365	+2846

D	E	F
-0.0387	-0.2579	-3117

Mag. = 17.0 - 1.09√d

2500	14	9.106	0.014
2501	23	11.344	0.200
2502	27	12.517	0.918
2503	8	15.128	0.624
2504	31	17.471	0.327
2505	10	20.088	0.758
2506*	60	23.193	0.188
2507	14	1.617	1.774
2508	9	2.340	1.274
2509	18	7.794	1.201
2510	19	8.718	1.958
2511	10	11.549	1.424
2512	10	12.980	1.230
2513	10	13.323	1.698
2514	20	25.900	1.291
2515*	100	1.052	2.815
2516	16	6.648	2.307
2517	26	7.310	2.937

2518	26	16.186	2.207
2519	15	16.498	2.285
2520	13	23.772	2.984
2521	10	1.138	3.037
2522	10	5.145	3.840
2523	8	8.292	3.783
2524	10	11.846	3.400
2525	14	15.002	3.226
2526*	60	16.022	3.478
2527	17	4.110	5.806
2528	36	5.437	5.300
2529	24	10.465	5.880
2530*	51	11.634	5.598
2531*	42	13.215	5.262
2532	9	14.119	5.128
2533	15	22.050	5.703
2534	26	0.398	6.437
2535	10	5.559	6.530
2536	16	7.006	6.734
2537	23	13.860	6.815
2538	24	14.490	6.092
2539	21	14.760	6.800
2540	27	22.279	6.911
2541	27	22.688	6.362
2542	10	23.153	6.176
2543	13	23.533	6.248
2544	37	0.284	7.106
2545	23	5.638	7.503
2546	36	6.626	7.960
2547	10	12.071	7.013
2548	13	15.319	7.327
2549	10	15.740	7.566
2550	8	16.919	7.278
2551	8	17.973	7.978
2552	11	21.614	7.350
2553	36	21.668	7.383
2554	9	25.223	7.250
2555	13	6.794	8.803
2556	15	9.652	8.108
2557*	61	14.720	8.242
2558	29	19.246	8.280
2559	13	21.489	8.620
2560*	62	23.521	8.363
2561	36	0.786	9.616
2562	19	6.034	9.288
2563	30	9.821	9.991
2564*	39	10.720	9.036
2565	17	20.934	9.922
2566	18	22.000	9.766
2567	13	24.056	9.103
2568	10	0.657	10.408
2569	31	2.676	10.911
2570	14	9.709	10.270
2571	19	16.560	10.597
2572	8	22.728	10.969
2573	28	23.196	10.108
2574	13	0.730	11.362
2575*	45	1.080	11.982
2576	13	1.298	11.364
2577	16	4.380	11.500
2578	19	11.062	11.690
2579	8	15.779	11.716
2580	26	21.200	11.164
2581	35	21.283	11.466
2582	35	22.783	11.642
2583*	61	24.032	11.156
2584	8	24.426	11.446
2585	11	0.452	12.399
2586	33	0.459	12.615
2587*	44	6.150	12.922
2588	12	12.099	12.693
2589	8	14.941	12.964
2590	13	15.092	12.714
2591*	44	20.457	12.598



2592	14	22-270	12-750	2666	8	2-762	24-018	2720	8	19-802	2-716	2794	40	10-848	12-920	2868*	41	12-874	21-499
2593	9	1-812	13-309	2667	11	8-152	24-190	2721	15	3-444	3-755	2795	14	13-132	12-646	2869	8	13-268	21-852
2594	12	9-262	13-363	2668	18	8-778	24-286	2722	9	4-326	3-916	2796	24	13-765	12-887	2870*	37	17-244	21-466
2595	10	9-570	13-765	2669	14	10-076	24-538	2723	26	5-404	3-163	2797	17	15-375	12-394	2871*	41	19-639	21-162
2596	15	15-994	13-927	2670	16	11-285	24-258	2724	37	9-748	3-883	2798	28	18-232	12-499	2872*	31	22-890	21-647
2597	14	23-835	13-518	2671	10	15-802	24-199	2725	8	9-766	3-072	2799	12	24-525	12-076	2873	9	25-585	21-364
2598	12	6-276	14-450	2672	40	17-513	24-994	2726	24	10-606	3-206	2800	26	1-210	13-461	2874	17	2-228	22-412
2599	10	12-805	14-776	2673	35	18-790	24-276	2727	23	19-114	3-709	2801	11	5-446	13-011	2875*	38	5-258	22-747
2600	14	13-292	14-080	2674	36	19-023	24-868	2728	12	24-452	3-777	2802	34	9-972	13-554	2876	35	8-508	22-062
2601	33	17-809	14-182	2675	13	20-154	24-117	2729	10	25-645	3-324	2803	19	10-378	13-034	2877*	42	8-862	22-890
2602	38	19-056	14-058	2676	21	22-180	24-698	2730	8	6-315	4-950	2804	17	14-736	13-705	2878	8	17-646	22-612
2603	8	25-257	14-280	2677	64	22-266	24-554	2731	36	6-414	4-978	2805	26	15-371	13-026	2879	12	18-206	22-134
2604	23	0-136	15-944	2678	12	22-756	24-736	2732	8	18-355	4-930	2806	13	2-636	14-218	2880	12	1-114	23-665
2605	29	2-654	15-166	2679	8	3-558	25-415	2733	8	2-864	5-847	2807	21	16-609	14-737	2881	33	6-916	23-650
2606	18	13-441	15-643	2680	18	4-546	25-443	2734	8	3-942	5-356	2808	11	5-254	15-938	2882	31	9-146	23-886
2607	9	16-241	15-361	2681	14	5-616	25-428	2735	11	8-058	5-527	2809	13	8-350	15-106	2883	35	14-043	23-876
2608	9	18-099	15-544	2682	27	6-134	25-916	2736	8	9-742	5-085	2810*	41	8-842	15-800	2884	12	0-176	24-683
2609*	60	20-530	15-651	2683	22	17-887	25-526	2737	12	15-478	5-028	2811	31	10-164	15-928	2885	8	0-332	24-802
2610	38	2-612	16-936	2684	30	24-308	25-472	2738*	56	17-144	5-010	2812	22	15-506	15-264	2886	8	6-701	24-104
2611	26	4-731	16-168					2739	9	23-600	5-602	2813	21	16-016	15-307	2887	18	9-835	24-218
2612	15	10-794	16-674					2740	30	25-843	5-140	2814	9	20-777	15-800	2888	66	9-978	24-400
2613	13	11-320	16-524					2741	27	0-034	6-309	2815	16	22-328	15-696	2889	9	13-245	24-264
2614	8	13-200	16-689					2742	13	0-499	6-118	2816	8	4-134	16-460	2890	37	13-642	24-652
2615	14	17-946	16-551					2743	16	0-880	6-194	2817	18	6-662	16-036	2891	19	17-752	24-321
2616	19	21-781	16-259					2744	22	6-218	6-959	2818	8	10-017	16-331	2892	13	19-579	24-627
2617*	49	22-201	16-682					2745	37	8-822	6-686	2819	8	10-498	16-665	2893	31	20-629	24-695
2618*	41	2-792	17-430					2746*	51	11-284	6-712	2820	30	17-450	16-570	2894	60	20-892	24-647
2619	8	6-756	17-159					2747	9	13-356	6-576	2821	12	17-534	16-632	2895	10	21-805	24-466
2620	17	7-279	17-550					2748	31	13-466	6-366	2822	22	21-552	16-686	2896	9	24-177	24-488
2621	28	9-804	17-858					2749*	62	14-346	6-494	2823	22	23-328	16-060	2897	44	1-732	25-416
2622	16	19-058	17-329					2750	10	14-799	6-972	2824	8	25-830	16-666	2898	8	3-047	25-437
2623	21	0-628	18-865					2751*	45	19-542	6-486	2825	8	0-856	17-108	2899	26	11-289	25-178
2624	8	3-322	18-568					2752	30	21-186	6-394	2826	10	6-570	17-700	2900	25	17-381	25-785
2625	31	5-558	18-527					2753	12	22-680	6-354	2827	21	11-574	17-781	2901	8	17-770	25-628
2626	29	12-446	18-758					2754	10	1-538	7-094	2828	26	12-888	17-562	2902	34	17-814	25-787
2627	11	14-782	18-792					2755	20	2-571	7-186	2829	10	15-622	17-914	2903	9	19-132	25-756
2628	9	16-667	18-676					2756	8	6-016	7-884	2830	27	16-170	17-597	2904	47	19-378	25-218
2629	21	21-038	18-978					2757	27	11-756	7-214	2831	10	24-614	17-274	2905	24	25-874	25-308
2630	30	24-764	18-652					2758	33	13-255	7-720	2832	26	24-620	17-288				
2631*	40	9-536	19-259					2759	24	18-842	7-299	2833	23	25-114	17-296				
2632	33	12-080	19-388					2760	32	22-920	7-794	2834	34	2-156	18-592				
2633	14	17-328	19-039					2761	16	23-338	7-875	2835	11	5-726	18-121				
2634	8	18-730	19-254					2762*	54	0-866	8-305	2836	8	18-337	18-314				
2635	13	23-854	19-356					2763*	36	5-284	8-613	2837	28	19-456	18-559				
2636	25	24-916	19-466					2764	22	6-040	8-006	2838*	47	22-265	18-090				
2637	30	1-786	20-350					2765*	36	7-976	8-504	2839	8	23-746	18-081				
2638	23	2-351	20-876					2766	9	15-272	8-204	2840	9	23-811	18-586				
2639	28	8-912	20-968					2767	8	21-107	8-614	2841	16	23-867	18-624				
2640	30	13-385	20-710					2768	22	1-413	9-044	2842	20	1-249	19-300				
2641	11	15-478	20-176					2769	8	4-660	9-259	2843	30	2-314	19-402				
2642	19	17-306	20-363					2770	8	4-770	9-360	2844	24	4-620	19-905				
2643	8	18-917	20-430					2771	24	9-570	9-908	2845	8	5-863	19-146				
2644	14	19-786	20-355					2772*	38	13-717	9-631	2846	22	13-911	19-328				
2645	10	24-188	20-488					2773	17	15-694	9-148	2847	8	15-372	19-858				
2646	36	2-220	21-734					2774	8	16-732	9-026	2848	10	17-664	19-980				
2647	44	10-844	21-470					2775	9	19-576	9-710	2849	26	20-810	19-424				
2648*	77	10-880	21-452					2776	13	20-774	9-594	2850	36	22-249	19-532				
2649*	39	13-982	21-098					2777*	57	23-222	9-919	2851	8	22-710	19-380				
2650*	41	14-500	21-729					2778	11	23-720	9-124	2852	23	23-180	19-388				
2651	13	24-070	21-528					2779	18	25-144	9-384	2853	21	25-272	19-038				
2652	11	2-490	22-110					2780	15	0-093	10-916	2854	13	1-588	20-430				
2653*	45	5-197	22-074					2781	32	0-554	10-053	2855	11	2-385	20-986				
2654	16	12-114	22-341					2782	25	3-556	10-194	2856	15	4-906	20-748				
2655	31	12-862	22-895					2783	11	4-548	10-644	2857	30	6-202	20-972				
2656	8	13-208	22-112					2784	9	5-249	10-574	2858	28	10-876	20-840				
2657	33	14-064	22-734					2785	8	6-062	10-202	2859	8	14-364	20-148				
2658	13	14-480	22-694					2786	26	9-702	10-852	2860	19	15-254	20-680				
2659	14	15-090	22-276					2787	33	0-148	11-588	2861	9	17-617	20-320				
2660	12	24-814	22-472					2788*	50	1-394	11-098	2862	10	24-709	20-820				
2661	10	6-090	23-169					2789	8	1-791	11-384	2863	9	24-936	20-566				
2662	37	6-460	23-632					2790	33	12-195	11-210	2864	24	1-475	21-470				
2663	16	12-230	23-690					2791	14	12-702	11-874	2865	8	4-370	21-594				
2664	8	18-910	23-710					2792	28	14-136	11-323	2866	26	8-818	21-289				
2665	19	0-990	24-999					2793	11	8-802	12-542	2867*	48						



3002	11	8.053	1.054	3076	18	25.188	15.204	3150	39	8.930	25.516	3236	29	9.781	4.042	3310	24	21.600	15.342
3003	15	23.240	1.150	3077	10	1.364	16.346	3151	36	9.004	25.493	3237	15	1.264	5.646	3311	11	22.462	15.346
3004*	55	24.984	1.720	3078*	30	8.558	16.387	3152	9	18.666	25.866	3238*	46	8.782	5.677	3312	21	4.440	16.442
3005	24	25.458	1.745	3079	10	9.726	16.992					3239	24	14.718	5.524	3313	27	7.264	16.982
3006	24	3.478	2.164	3080*	46	12.530	16.426					3240	30	20.286	5.536	3314	19	8.134	16.681
3007	11	4.154	2.120	3081	10	16.136	16.500					3241	30	25.152	5.677	3315	22	11.204	16.014
3008	8	6.760	2.112	3082	9	18.460	16.418					3242	9	1.160	6.586	3316	11	13.230	16.570
3009	30	13.276	2.862	3083	14	19.050	16.007					3243	20	8.804	6.613	3317*	31	22.064	16.470
3010	12	22.310	2.730	3084	33	20.808	16.316					3244*	23	11.698	6.050	3318	10	25.270	16.053
3011	31	25.870	2.544	3085	23	21.318	16.266					3245	21	11.903	6.136	3319*	33	1.468	17.307
3012	10	3.476	3.569	3086	22	22.600	16.518					3246	18	14.656	6.640	3320	11	9.112	17.608
3013	16	6.930	3.872	3087	8	2.668	17.538					3247*	50	16.159	6.468	3321	15	10.089	17.242
3014	23	8.100	3.528	3088	16	2.677	17.552					3248	10	16.384	6.106	3322	25	12.100	17.106
3015	10	10.400	3.623	3089	12	3.170	17.552					3249	8	17.390	6.350	3323	14	12.769	17.576
3016	8	12.460	3.813	3090	8	13.338	17.066					3250	19	19.192	6.466	3324*	122	12.935	17.482
3017	18	12.649	3.270	3091	12	13.393	17.505					3251	16	19.394	6.996	3325	11	17.189	17.358
3018	22	13.124	3.016	3092	10	14.762	17.580					3252	26	19.933	6.162	3326	14	18.162	17.162
3019	11	13.834	3.118	3093	14	15.120	17.119					3253	8	22.586	6.784	3327*	42	21.715	17.824
3020	11	17.546	3.282	3094	10	19.084	17.770					3254*	34	6.033	7.976	3328	8	4.498	18.712
3021	9	2.292	4.046	3095	21	20.754	17.136					3255	12	6.696	7.570	3329	8	6.706	18.350
3022	11	8.634	4.185	3096*	31	24.142	17.231					3256	8	8.466	7.706	3330*	34	9.147	18.216
3023	15	21.130	4.770	3097	48	0.328	18.394					3257	24	14.240	7.748	3331	10	13.374	18.974
3024	24	3.700	5.386	3098*	38	4.394	18.684					3258*	34	6.132	8.924	3332*	32	16.395	18.800
3025*	57	14.200	5.408	3099	8	6.544	18.032					3259	8	8.868	8.118	3333	25	21.210	18.032
3026	10	18.840	5.036	3100	11	8.214	18.366					3260	8	14.858	8.968	3334	8	21.288	18.108
3027	10	24.001	5.566	3101	10	12.002	18.452					3261	8	18.917	8.210	3335	9	1.572	19.728
3028	19	5.774	6.560	3102	33	0.338	19.834					3262	8	19.204	8.050	3336	10	3.274	19.914
3029	12	7.590	6.264	3103	10	1.269	19.674					3263	24	3.212	9.100	3337	10	10.294	19.095
3030*	185	11.352	6.193	3104	10	3.358	19.290					3264	20	9.730	9.378	3338	14	10.630	19.584
3031	8	14.673	6.766	3105	34	11.000	19.330					3265	22	14.172	9.890	3339	8	12.121	19.679
3032	10	15.047	6.068	3106	12	12.230	19.482					3266	8	19.212	9.672	3340	8	12.214	19.075
3033	10	17.019	6.112	3107	8	15.706	19.308					3267	15	19.926	9.320	3341	11	15.044	19.632
3034	8	18.810	6.226	3108	10	18.702	19.065					3268*	44	9.538	10.262	3342	11	17.150	19.948
3035	17	12.546	7.418	3109	12	20.370	19.128					3269	13	11.720	10.682	3343	10	18.450	19.944
3036	19	14.961	7.424	3110	8	3.044	20.822					3270	14	12.864	10.200	3344	21	19.000	19.834
3037	9	19.394	7.098	3111*	48	5.229	20.531					3271	15	13.002	10.473	3345*	34	21.272	19.872
3038	25	0.820	8.088	3112	11	10.627	20.756					3272	13	14.243	10.467	3346	11	23.591	19.080
3039	10	1.240	8.162	3113	23	15.154	20.271					3273	37	23.512	10.164	3347	9	3.504	20.526
3040	10	17.566	8.850	3114	10	17.340	20.941					3274	18	24.695	10.453	3348	23	12.270	20.087
3041	10	1.643	9.404	3115	9	20.162	20.938					3275	12	9.734	11.881	3349*	48	21.416	20.736
3042	12	3.070	9.640	3116*	47	20.988	20.887					3276	15	10.006	11.796	3350	12	4.388	21.316
3043	10	12.551	9.832	3117	9	22.644	20.640					3277	18	19.236	11.978	3351	13	5.647	21.256
3044	8	23.858	9.247	3118	30	1.016	21.936					3278	30	21.308	11.093	3352	21	9.796	21.984
3045	22	25.930	9.034	3119	8	1.382	21.938					3279	45	25.235	11.564	3353	10	13.210	21.104
3046*	59	1.152	10.206	3120	10	6.406	21.553					3280	19	1.730	12.168	3354	12	17.028	21.680
3047	9	6.406	10.483	3121	10	7.038	21.546					3281	8	2.976	12.771	3355	12	18.152	21.763
3048	13	6.435	10.136	3122	14	9.790	21.668					3282	22	3.687	12.644	3356*	36	7.118	22.382
3049	10	17.173	10.857	3123	15	12.128	21.930					3283*	55	13.344	12.340	3357*	44	13.739	22.874
3050*	29	17.636	10.202	3124	10	12.248	21.195					3284	10	15.732	12.316	3358	24	22.013	22.133
3051	10	10.188	11.980	3125	9	13.512	21.405					3285	10	17.668	12.482	3359	28	2.936	23.791
3052	10	10.400	11.348	3126	13	14.160	21.644					3286	23	19.634	12.099	3360	17	8.194	23.938
3053	20	14.628	11.832	3127	28	16.540	21.488					3287	26	22.828	12.138	3361	38	5.110	24.192
3054	17	17.224	11.223	3128	11	21.418	21.382					3288	28	24.530	12.248	3362	19	6.186	24.752
3055	19	17.850	11.066	3129	9	4.263	22.620					3289	11	5.963	13.550	3363	27	8.308	24.755
3056	10	2.495	12.343	3130	10	6.939	22.542					3290	10	13.639	13.610	3364	11	15.444	24.331
3057	12	10.386	12.195	3131	10	10.042	22.260					3291	8	22.862	13.212	3365	10	16.038	24.801
3058*	30	14.488	12.300	3132	13	14.792	22.450					3292*	36	2.850	14.436	3366	22	21.767	24.319
3059	15	24.431	12.092	3133	20	7.321	23.344					3293	20	6.173	14.363	3367	8	22.946	24.268
3060	9	5.557	13.396	3134	8	9.634	23.905					3294	19	6.352	14.912	3368	21	6.566	25.959
3061	20	7.659	13.600	3135	9	10.038	23.700					3295	13	9.718	14.168	3369	16	9.898	25.490
3062	9	8.604	13.290	3136	8	12.562	23.165					3296	22	20.524	14.364	3370	32	22.453	25.406
3063	8	9.840	13.343	3137	15	13.210	23.200					3297	11	21.467	14.887				
3064	12	16.425	13.074	3138	37	16.989	23.606					3298	19	25.596	14.096				
3065	9	17.900	13.201	3139	80	19.967	23.996					3299	21	2.137	15.800				
3066	8	4.654	14.796	3140	10	20.084	23.794					3300	20	2.504	15.275				
3067	12	7.565	14.484	3141	22	25.566	23.721					3301	9	3.458	15.918				
3068	9	7.987	14.295	3142	9	2.351	24.756					3302*	40	4.545	15.714				
3069	10	11.402	14.470	3143	14	13.086	24.038					3303	8	7.164	15.766				
3070	10	16.952	14.356	3144	10	20.998	24.569					3304*	58	9.018	15.284				
3071	27	17.975	14.074	3145	16	21.270	24.436					3305	14	12.468	15.342				
3072	12	21.913	14.695	3146	21	4.061	25.552					3306	24	13.444	15.714				
3073	31	25.542	14.366	3147	27	4.892	25.227					3307*	60	13.682	15.184				
3074	8	0.356	15.998	3148	9	5.547	25.880					3308	21	15.794	15.815				
3075	16	24.818	15.728																



R.A. 1<sup>h</sup> 56<sup>m</sup>

Plate 774 ; 1916 Oct. 20.

## Provisional Constants.

A	B	C
-0.02552	-0.00039	+0.2804

D	E	F
+0.00026	-0.02542	+0.0338

Mag. = 15.6 - 1.09√d

No.	d	x	y
3400	10	4.866	0.884
3401	11	9.265	0.262
3402	8	9.886	0.506
3403*	42	20.695	0.571
3404	13	21.752	0.098
3405	8	2.635	1.844
3406	10	5.455	1.337
3407	10	7.990	1.675
3408	20	10.376	1.494
3409	20	15.882	1.784
3410	13	6.855	2.744
3411	21	10.035	2.023
3412	18	13.352	2.665
3413	17	13.494	2.762
3414*	38	17.868	2.140
3415	12	20.215	2.752
3416	10	23.136	2.872
3417*	60	24.715	2.874
3418	8	1.214	3.325
3419	11	3.690	3.580
3420	14	5.884	3.770
3421	8	8.565	3.348
3422	10	10.057	3.116
3423	10	19.953	3.244
3424	11	20.293	3.697
3425	15	23.632	3.370
3426	9	6.164	4.531
3427	20	2.876	5.818
3428	11	13.100	5.073
3429	9	20.848	5.355
3430	21	23.198	5.846
3431	12	23.772	5.224
3432	11	9.435	6.683
3433	8	12.024	6.113
3434	8	12.529	6.484
3435	11	15.505	6.304
3436	15	17.036	6.345
3437*	28	20.832	6.392
3438	12	23.421	6.084
3439	10	25.032	6.848
3440	9	15.610	7.662
3441	9	21.274	7.196
3442*	40	4.420	8.276
3443	11	10.415	8.390
3444	15	12.962	8.262
3445	12	14.405	8.508
3446	22	15.160	8.616
3447	10	16.182	8.866
3448	11	18.526	8.422
3449	13	20.446	8.404
3450	18	15.002	9.176
3451*	27	15.275	9.350
3452	9	17.869	9.982
3453*	60	23.373	9.174
3454	12	24.476	9.824
3455	24	1.280	10.323

3456	12	2.471	10.600
3457	12	4.498	10.976
3458*	40	11.482	10.736
3459	9	16.900	10.298
3460*	18	16.905	10.545
3461	23	17.770	10.823
3462*	22	19.000	10.400
3463*	42	23.834	10.022
3464	8	24.614	10.964
3465	12	25.405	10.523
3466*	40	3.016	11.705
3467	10	7.746	11.466
3468	14	17.215	11.826
3469	11	18.999	11.033
3470	18	21.935	11.726
3471	11	22.275	11.264
3472*	37	23.894	11.164
3473	17	0.620	12.303
3474	13	2.324	12.395
3475	14	5.850	12.702
3476	8	13.412	12.784
3477	12	13.524	12.772
3478	8	16.828	12.385
3479	14	24.990	12.914
3480	14	4.186	13.954
3481	8	4.482	13.736
3482	12	4.846	13.635
3483	10	7.130	13.035
3484	9	7.996	13.662
3485	11	10.486	13.690
3486*	47	16.170	13.321
3487*	32	16.840	13.306
3488	8	17.820	13.841
3489	20	20.048	13.868
3490	12	23.065	13.004
3491	8	2.418	14.066
3492	13	3.410	14.235
3493	9	8.798	14.850
3494	8	21.940	14.932
3495	9	0.287	15.514
3496	8	4.540	15.457
3497	18	13.013	16.075
3498	11	13.314	16.776
3499	8	14.654	16.484
3500	11	15.897	16.276
3501	10	22.400	16.920
3502	12	4.148	17.520
3503	16	11.250	17.570
3504	10	13.674	17.935
3505*	16	15.710	17.741
3506	14	18.868	17.004
3507	8	7.500	18.676
3508*	55	20.317	18.748
3509	10	1.455	19.235
3510	10	24.246	19.685
3511	12	24.322	19.400
3512	9	4.035	20.520
3513	14	13.359	20.490
3514	18	20.115	20.247
3515	13	25.942	20.566
3516	12	4.466	21.080
3517	9	4.894	21.844
3518	14	16.218	21.156
3519	15	16.842	21.436
3520	9	23.906	21.876
3521*	45	24.116	21.716
3522	8	4.588	22.882
3523	8	13.143	22.558
3524	8	17.955	22.033
3525	10	5.851	23.579
3526	10	7.056	23.751
3527	10	7.112	23.388
3528	11	8.758	23.957
3529	16	9.752	23.507

3530	15	11.412	23.976
3531	9	14.998	23.995
3532	13	15.034	23.448
3533	10	16.576	23.886
3534	12	17.335	23.130
3535	21	19.802	23.617
3536	38	25.850	23.474
3537	24	6.161	24.906
3538	10	21.237	24.040
3539	60	21.667	24.364
3540	8	22.598	24.614
3541	10	24.338	24.376
3542	24	0.384	25.574
3543	10	8.916	25.916
3544	17	9.014	25.867
3545	19	9.834	25.167
3546	10	15.496	25.150
3547	10	24.032	25.613
3548	12	24.609	25.498

R.A. 2<sup>h</sup> 4<sup>m</sup>

Plate 799 ; 1916 Nov. 16.

## Provisional Constants.

A	B	C
-0.02563	+0.00068	+0.2344

D	E	F
-0.00061	-0.02583	-0.3437

Mag. = 16.3 - 1.09√d

3600	23	6.145	0.768
3601	13	8.810	0.442
3602	17	12.441	0.710
3603	21	22.978	0.349
3604	11	23.959	0.676
3605	9	2.919	1.380
3606*	37	3.801	1.622
3607	26	8.238	1.108
3608	12	9.446	1.793
3609	29	10.677	1.884
3610	11	15.450	1.065
3611	16	22.123	1.740
3612	10	22.468	1.278
3613	8	22.765	1.567
3614	22	23.016	1.170
3615	14	24.170	1.852
3616	14	0.622	2.500
3617	23	1.119	2.994
3618*	62	2.190	2.484

3619*	57	7.740	2.766
3620	24	9.804	2.317
3621	15	20.566	2.703
3622	20	25.888	2.238
3623*	37	4.196	3.558
3624	23	8.400	3.435
3625	11	17.932	3.613
3626	9	22.483	3.327
3627	20	1.282	4.843
3628	16	13.850	4.673
3629	37	16.240	4.372
3630	26	17.436	4.452
3631	15	19.321	4.892
3632	31	0.708	5.474
3633	18	0.940	5.708
3634	22	5.698	5.318
3635	13	7.520	5.181
3636	22	14.908	5.094
3637	22	17.850	5.852
3638	17	19.257	5.066
3639	24	19.360	5.740
3640	9	20.892	5.657
3641	11	20.662	5.491
3642	12	25.314	5.097
3643	17	2.558	6.454
3644	23	4.834	6.004
3645	20	7.710	6.829
3646*	65	13.294	6.290
3647	12	15.502	6.811
3648	14	17.785	6.827
3649	8	21.778	6.240
3650	10	23.600	6.028
3651	19	7.502	7.911
3652	26	8.355	7.849
3653	12	14.381	7.218
3654*	60	15.250	7.634
3655	10	15.758	7.517
3656	31	16.291	7.250
3657	31	16.680	7.172
3658	18	17.294	7.020
3659	31	17.806	7.520
3660	14	18.648	7.008
3661	20	20.844	7.288
3662	12	24.515	7.752
3663*	73	0.915	8.800
3664	30	6.550	8.482
3665	15	17.470	8.150
3666	14	17.592	8.522
3667	20	20.133	8.412
3668*	64	1.389	9.640
3669	8	1.842	9.329
3670	20	2.035	9.438
3671	25	5.884	9.399
3672	37	6.098	9.035
3673*	40	9.578	9.843
3674	22	14.794	9.684
3675	12	16.437	9.012
3676	16	17.274	9.283
3677	30	18.198	9.912
3678	8	18.452	9.461
3679	26	21.886	9.348
3680	23	22.982	9.506
3681*	44	1.462	10.785
3682	15	2.184	10.575
3683	18	2.969	10.127
3684	20	10.851	10.532
3685	19	13.912	10.168
3686	23	20.836	10.189
3687*	41	22.432	10.692
3688*	45	23.422	10.712
3689	23	4.249	11.937
3690*	38	11.241	11.538
3691	10	16.266	11.004
3692	10	16.408	11.166

3693	11	25.801	11.447
3694	15	0.658	12.636
3695	9	0.776	12.532
3696	25	2.582	12.520
3697	15	3.686	12.960
3698	27	7.820	12.300
3699	26	12.656	12.422
3700	9	15.786	12.112
3701	22	16.230	12.253
3702	18	17.084	12.179
3703	14	18.392	12.439
3704	11	19.212	12.076
3705*	52	13.716	13.766
3706	18	17.096	13.666
3707	13	21.249	13.462
3708	13	3.572	14.600
3709	12	4.672	14.888
3710	12	10.252	14.752
3711	16	12.004	14.748
3712*	38	17.204	14.566
3713	19	21.621	14.050
3714	20	21.940	14.370
3715	30	22.214	14.335
3716	23	25.926	14.632
3717	9	4.176	15.100
3718	10	6.208	15.963
3719*	50	10.678	15.936
3720	19	12.168	15.698
3721	19	13.531	15.644
3722	22	15.314	15.258
3723	25	16.520	15.445
3724	20	23.957	15.372
3725	15	24.548	15.108
3726	13	0.038	16.554
3727	19	5.870	16.412
3728	11	10.218	16.146
3729	11	10.280	16.799
3730	11	11.520	16.253
3731*	38	19.682	16.713
3732	14	21.430	16.846
3733	9	0.266	17.120
3734	21	9.879	17.819
3735	18	10.309	17.772
3736	40	10.560	17.601
3737	32	11.908	17.460
3738	12	14.020	17.878
3739	26	14.360	17.360
3740*	66	15.058	17.440
3741	16	15.158	17.836
3742	9	6.297	18.816
3743	33	12.022	18.508
3744	9	13.464	18.629
3745	8	16.670	18.738
3746	26	20.353	18.314
3747	13	20.550	18.028
3748	12	21.082	18.658
3749	15	1.916	19.300
3750	21	1.988	19.013
3751	23	5.990	19.080
3752	17	13.161	19.460
3753	9	14.361	19.850
3754	11	14.909	19.222
3755	11	19.483	19.164
3756	20	22.714	19.987
3757	30	23.343	19.816
3758	9	0.246	20.379
3759	11	2.042	20.224
3760	23	3.616	20.164
3761	25	8.734	20.860
3762	21	9.482	20.910
3763	15	10.320	20.542
3764*	45	17.120	20.158
3765	10	17.128	20.134
3766	23	19.791	20.513



3767	9	20.363	20.403	3902	24	7.480	0.570	3976*	45	12.735	9.424	4050	16	24.372	18.636
3768	12	1.602	21.497	3903	10	12.335	0.823	3977*	48	13.385	9.844	4051	31	1.043	19.948
3769*	55	1.802	21.332	3904	9	14.775	0.494	3978	10	15.863	9.390	4052	8	3.814	19.506
3770*	39	4.906	21.586	3905*	46	16.550	0.520	3979	9	18.596	9.186	4053	9	13.950	19.252
3771	18	10.036	21.257	3906	8	18.063	0.708	3980	8	23.520	9.960	4054	20	14.350	19.468
3772	15	10.496	21.050	3907	12	25.498	0.803	3981	43	0.010	10.838	4055	35	15.709	19.216
3773	11	13.356	21.046	3908	20	0.475	1.306	3982*	45	0.998	10.844	4056	12	17.084	19.798
3774	14	14.420	21.882	3909	11	1.638	1.976	3983	10	5.727	10.299	4057	18	24.268	19.706
3775	26	24.592	21.300	3910	14	7.234	1.914	3984*	45	8.582	10.503	4058	10	25.012	19.284
3776	27	5.934	22.912	3911	49	12.140	1.135	3985	8	13.170	10.358	4059*	46	25.440	19.076
3777*	45	12.908	22.452	3912	28	13.706	1.178	3986*	41	15.746	10.000	4060	20	0.417	20.128
3778	12	17.838	22.751	3913	17	14.132	1.669	3987	10	15.880	10.077	4061	14	4.576	20.447
3779	16	18.557	22.947	3914	24	14.701	1.722	3988	35	21.552	10.041	4062	27	5.258	20.423
3780	15	19.400	22.260	3915	28	18.522	1.603	3989	10	3.395	11.548	4063	10	7.507	20.020
3781	9	1.318	23.079	3916	13	19.430	1.318	3990	24	3.872	11.500	4064	25	8.200	20.884
3782	18	2.064	23.992	3917	24	19.980	1.308	3991	18	6.803	11.148	4065	10	10.484	20.834
3783*	38	3.557	23.070	3918	10	23.390	1.382	3992	33	8.787	11.074	4066	16	11.660	20.030
3784	17	6.780	23.034	3919	14	23.582	1.601	3993	8	12.386	11.204	4067	11	13.640	20.400
3785	28	7.176	23.852	3920	10	25.294	1.804	3994	10	15.260	11.974	4068	24	14.722	20.570
3786	11	11.948	23.230	3921	10	25.794	1.201	3995	28	20.946	11.341	4069	14	16.997	20.455
3787*	44	12.184	23.512	3922	30	3.365	2.337	3996	23	22.125	11.160	4070	22	23.784	20.416
3788	8	12.946	23.438	3923	40	4.900	2.155	3997	10	25.070	11.406	4071	33	2.314	21.414
3789	24	13.110	23.079	3924	16	17.040	2.834	3998	10	3.970	12.200	4072	13	6.256	21.412
3790	9	13.479	23.093	3925	8	17.730	2.152	3999*	46	5.056	12.776	4073	11	6.880	21.490
3791	16	15.998	23.018	3926	19	21.170	2.157	4000	23	9.695	12.168	4074	10	7.769	21.542
3792	31	19.116	23.590	3927	11	21.346	2.352	4001	13	13.977	12.260	4075	12	14.554	21.365
3793	8	19.650	23.489	3928	14	22.668	2.314	4002	10	18.100	12.890	4076	9	16.200	21.872
3794	13	24.243	23.664	3929	13	5.088	3.545	4003	23	23.884	12.773	4077	10	21.060	21.612
3795	18	24.468	23.120	3930	36	5.842	3.211	4004	10	3.250	13.120	4078	38	25.290	21.065
3796	11	0.328	24.248	3931	11	7.374	3.136	4005	21	6.510	13.542	4079	11	2.643	22.424
3797	24	5.650	24.094	3932	14	8.853	3.483	4006	14	8.842	13.015	4080	12	3.897	22.192
3798	47	6.534	24.200	3933	25	11.116	3.214	4007	19	9.540	13.030	4081	11	11.885	22.680
3799	40	12.950	24.348	3934	22	19.046	3.929	4008	16	10.378	13.297	4082	10	14.400	22.564
3800	8	18.910	24.334	3935*	57	10.226	4.872	4009*	47	10.855	13.324	4083	11	17.660	22.049
3801	29	23.608	24.886	3936	12	2.826	5.200	4010	15	14.221	13.464	4084	11	21.594	22.679
3802	17	1.770	25.230	3937	21	5.560	5.608	4011	10	20.280	13.764	4085	12	1.998	22.788
3803	21	2.348	25.109	3938	10	7.400	5.479	4012	8	20.677	13.468	4086	20	2.210	23.235
3804	14	6.699	25.140	3939	30	8.266	5.970	4013	11	21.283	13.474	4087	10	2.325	23.412
3805	40	8.979	25.330	3940	31	8.296	5.190	4014	24	3.556	14.730	4088*	35	6.640	23.061
3806	23	14.781	25.573	3941*	77	9.205	5.890	4015	24	5.221	14.164	4089*	27	6.730	23.004
3807	10	18.364	25.027	3942*	47	13.354	5.390	4016	36	5.945	14.064	4090	12	6.872	23.170
3808	14	19.603	25.268	3943	10	13.918	5.678	4017	10	14.720	14.743	4091	23	8.362	23.182
3809	30	22.756	25.968	3944	25	14.776	5.135	4018	11	14.950	14.498	4092	28	18.840	23.188
3810	14	24.222	25.924	3945	9	16.298	5.518	4019	21	15.785	14.339	4093	13	19.263	23.378
3811	15	25.983	25.834	3946*	49	16.334	5.066	4020*	52	19.283	14.458	4094	8	22.219	23.176
				3947	10	16.440	5.500	4021	15	23.190	14.606	4095	18	3.818	24.997
				3948	13	20.463	5.755	4022	9	25.350	14.938	4096	16	4.451	24.780
				3949	28	20.862	5.568	4023	20	1.600	15.500	4097	17	7.438	24.668
				3950	9	1.126	6.160	4024	15	2.186	15.224	4098	12	9.466	24.730
				3951	16	3.746	6.548	4025	11	5.025	15.030	4099	20	11.142	24.224
				3952*	57	4.995	6.076	4026	25	7.576	15.020	4100	40	11.494	24.194
				3953	18	6.201	6.078	4027	22	8.190	15.764	4101	22	16.226	24.144
				3954*	49	8.939	6.999	4028	11	14.128	15.250	4102	12	17.450	24.903
				3955*	41	9.958	6.153	4029*	56	16.429	15.470	4103	10	17.985	24.324
				3956	14	12.084	6.285	4030	15	17.635	15.094	4104	25	24.898	24.574
				3957	20	12.300	6.996	4031	27	19.839	15.637	4105	44	1.379	25.017
				3958	10	16.980	6.196	4032	15	20.725	15.216	4106	24	3.766	25.930
				3959	12	19.974	6.612	4033	14	21.620	15.682	4107	10	7.900	25.610
				3960	11	2.060	7.869	4034*	64	5.460	16.630	4108	15	13.360	25.571
				3961	20	6.174	7.820	4035	22	8.038	16.628	4109	11	15.220	25.727
				3962	13	6.280	7.902	4036	14	8.888	16.344				
				3963	8	8.089	7.618	4037	8	14.030	16.353				
				3964	8	14.971	7.665	4038*	47	15.887	16.186				
				3965	13	15.553	7.086	4039	25	20.311	16.328				
				3966	14	21.230	7.314	4040	13	22.221	16.036				
				3967	27	24.674	7.718	4041	25	7.038	17.173				
				3968	21	24.810	7.060	4042	9	11.900	17.564				
				3969	10	3.640	8.026	4043	10	22.520	17.559				
				3970	39	8.548	8.752	4044	15	4.908	18.233				
				3971	14	11.642	8.328	4045	13	5.914	18.536				
				3972	8	13.600	8.256	4046	17	8.964	18.050				
				3973	17	23.745	8.750	4047	13	14.463	18.766				
				3974	22	0.548	9.646	4048	14	14.515	18.132				
				3975	9	9.940	9.532	4049	10	19.130	18.379				

R.A. 2<sup>h</sup> 20<sup>m</sup>

Plate 775; 1916 Oct. 20.

Provisional Constants

A B C  
 -02589 +00530 +1776

D E F  
 -00495 -02553 +0869

Mag.=16.5 - 1.09√d

No.	d	x	y
4200	21	5.495	0.025
4201*	42	7.843	0.994
4202	14	20.873	0.936
4203	14	0.914	1.784
4204	17	1.105	1.996
4205	14	3.012	1.176
4206	13	3.316	1.573
4207	13	8.782	1.154
4208	14	11.583	1.496
4209	21	12.445	1.966
4210	13	22.113	1.370
4211	12	25.566	1.527
4212	13	0.200	2.721
4213	11	2.820	2.177
4214	9	15.838	2.969
4215	16	15.928	2.327
4216	23	18.204	2.821
4217	12	22.630	2.717
4218	24	22.916	2.576
4219*	60	4.106	3.681
4220	21	4.568	3.492
4221	12	9.584	3.638
4222	30	9.602	3.311
4223	30	14.281	3.008
4224	12	20.899	3.717
4225*	31	10.592	4.814
4226	19	14.421	4.910
4227	13	21.458	4.034
4228*	34	24.611	4.984
4229	11	16.790	5.683
4230	14	20.966	5.832
4231	20	23.462	5.042
4232	16	9.851	6.267
4233	10	18.108	6.764
4234	16	21.449	6.476
4235	17	21.468	6.480
4236	19	2.398	7.441
4237	27	7.176	7.350
4238	24	14.448	7.766
4239	18	15.741	7.066
4240	12	16.774	7.366
4241	21	16.919	7.248
4242	11	20.926	7.495
4243	21	2.266	8.097
4244	18	4.024	8.573
4245	22	17.116	8.458
4246	22	22.788	8.246
4247	21	1.351	9.141
4248	14	4.510	9.926
4249	23	7.136	9.094
4250*	98	11.272	9.289
4251	19	11.572	9.278
4252*	39	4.102	10.983
4253	23	4.539	10.421
4254	13	6.838	10.608
4255	16	11.796	10.198



4256	25	12.200	10.936	4330	13	8.181	23.033	4427	42	12.245	4.710	4501	24	6.242	15.457
4257	16	20.340	10.802	4331	18	8.528	23.004	4428	35	19.658	4.414	4502	23	6.545	15.088
4258	30	21.282	10.617	4332	17	8.643	23.054	4429*	44	20.338	4.740	4503	18	9.040	15.598
4259	8	4.644	11.282	4333*	37	12.171	23.276	4430	16	3.768	5.620	4504	13	11.047	15.498
4260	16	6.782	11.654	4334	17	17.974	23.687	4431	21	9.502	5.760	4505*	40	12.752	15.876
4261*	36	8.744	11.360	4335	27	2.686	24.956	4432	36	20.372	5.856	4506	13	16.482	15.892
4262	16	8.936	11.705	4336	24	6.066	24.693	4433	15	21.562	5.876	4507	33	18.120	15.600
4263	10	13.590	11.515	4337	18	15.897	24.088	4434	32	21.800	5.066	4508	10	15.152	16.549
4264	11	18.779	11.302	4338	15	18.066	24.466	4435*	44	4.096	6.709	4509	9	15.982	16.036
4265	19	21.600	11.974	4339	80	5.664	25.819	4436	12	4.356	6.816	4510	17	20.974	16.805
4266*	70	6.096	12.308	4340	29	14.642	25.314	4437*	46	13.964	6.308	4511	8	23.718	16.236
4267	13	6.942	12.896					4438	17	18.574	6.630	4512	22	24.454	16.382
4268	24	8.226	12.890					4439	8	20.626	6.818	4513	27	25.505	16.085
4269	15	12.624	12.812					4440	17	22.782	6.577	4514*	46	5.766	17.375
4270	11	14.217	12.128					4441	13	4.112	7.127	4515	40	6.865	17.682
4271	18	16.483	12.342					4442	9	5.632	7.685	4516*	41	9.384	17.400
4272	16	21.126	12.305					4443	8	6.618	7.185	4517	30	10.806	17.246
4273	22	1.534	13.166					4444*	42	7.584	7.816	4518	8	13.312	17.836
4274	17	5.646	13.130					4445	17	8.574	7.084	4519	31	14.808	17.542
4275	12	8.750	13.290					4446	11	14.672	7.732	4520	24	15.945	17.420
4276	10	11.558	13.295					4447*	53	16.701	7.364	4521	38	17.760	17.958
4277	18	12.829	13.956					4448	44	17.486	7.154	4522	36	19.823	17.964
4278	17	14.162	13.874					4449	35	18.286	7.316	4523	22	14.904	18.556
4279	21	19.501	13.227					4450*	41	21.854	7.364	4524	34	16.006	18.535
4280	19	24.956	13.448					4451	8	23.583	7.372	4525	9	20.654	18.345
4281*	32	16.029	14.498					4452	37	0.498	8.046	4526	10	23.216	18.285
4282*	42	17.858	14.863					4453	8	3.098	8.832	4527*	49	23.517	18.956
4283	10	18.635	14.257					4454*	46	6.300	8.714	4528	9	23.535	18.350
4284	14	0.859	15.004					4455	27	7.076	8.955	4529	35	1.927	19.359
4285	12	4.164	15.828					4456	15	15.780	8.550	4530	10	9.074	19.213
4286	16	10.173	15.911					4457	8	17.435	8.464	4531	37	10.553	19.927
4287	10	17.524	15.068					4458	33	18.052	8.614	4532*	58	22.554	19.188
4288	12	19.584	15.122					4459	12	22.444	8.878	4533	8	1.388	20.597
4289	19	24.716	15.346					4460	40	12.904	9.154	4534*	44	3.547	20.674
4290	23	4.246	16.956					4461	29	14.155	9.932	4535	35	12.691	20.871
4291	18	16.608	16.462					4462	20	17.298	9.606	4536	35	14.198	20.886
4292	23	21.058	16.795					4463	8	19.314	9.675	4537	37	17.162	20.386
4293*	40	4.526	17.669					4464	8	19.860	9.572	4538	12	19.330	20.186
4294	15	6.574	17.254					4465	8	4.156	10.226	4539*	79	19.694	20.900
4295	12	13.159	17.696					4466	38	5.539	10.615	4540	17	1.460	22.671
4296	22	6.517	18.108					4467	11	14.864	10.387	4541	10	5.930	22.074
4297	16	6.946	18.756					4468	8	3.915	11.405	4542	30	14.108	22.030
4298	21	6.962	18.795					4469	40	4.710	11.816	4543	13	20.006	22.672
4299	23	7.064	18.964					4470	8	5.342	11.330	4544	13	20.674	22.359
4300	13	7.531	18.510					4471*	45	6.270	11.262	4545*	52	24.699	22.106
4301	16	8.019	18.832					4472	41	11.108	11.340	4546	11	11.054	23.026
4302	13	9.394	18.106					4473	32	13.216	11.611	4547	35	15.336	23.864
4303	16	16.896	18.856					4474	10	15.492	11.332	4548	28	15.604	23.596
4304	16	19.102	18.123					4475	9	0.510	12.335	4549	38	16.382	23.113
4305	16	2.094	19.024					4476	40	6.453	12.318	4550	27	6.225	24.586
4306	13	2.740	19.662					4477	23	6.582	12.558	4551	8	11.923	24.996
4307*	36	3.162	19.446					4478	11	10.696	12.632	4552	36	15.178	24.836
4308	14	13.874	19.162					4479*	43	15.590	12.921	4553	46	15.214	24.462
4309	17	14.102	19.827					4480	20	21.155	12.136	4554	14	17.089	24.450
4310*	39	18.930	19.817					4481	38	21.580	12.786	4555	8	20.677	24.058
4311	13	21.540	19.764					4482	31	2.714	13.232	4556	80	22.178	24.894
4312	11	22.310	19.032					4483	24	8.646	13.764	4557	40	5.084	25.856
4313	25	24.124	19.570					4484	30	12.040	13.058	4558	29	7.028	25.486
4314	24	1.524	20.809					4485	26	13.970	13.778	4559	18	10.812	25.674
4315	17	1.999	20.094					4486	32	18.919	13.220	4560	27	13.028	25.038
4316	15	5.465	20.278					4487	31	20.072	13.101	4561	9	13.370	25.114
4317	15	11.266	20.788					4488	34	20.536	13.256	4562	28	22.684	25.784
4318*	36	11.456	20.700					4489*	44	22.321	13.620				
4319	13	13.108	20.128					4490*	46	24.802	13.572				
4320	21	17.570	20.763					4491	15	3.048	14.850				
4321	23	18.346	20.318					4492	30	8.093	14.625				
4322	13	20.288	20.478					4493	40	9.976	14.520				
4323	42	25.733	20.901					4494	32	12.712	14.644				
4324	30	3.035	21.438					4495	39	12.779	14.362				
4325	21	19.638	21.556					4496	24	16.673	14.006				
4326	15	19.777	21.026					4497	40	23.928	14.276				
4327	17	12.906	22.070					4498	8	24.476	14.809				
4328	20	23.628	22.877					4499	35	2.486	15.129				
4329	13	6.114	23.225					4500	14	4.342	15.997				

R.A. 2h 36m

Plate 776; 1916 Oct. 20.

Provisional Constants.

A B C  
 -02578 +00366 +2713

D E F  
 -00356 -02567 -0878

Mag.=16.3-1.09√d

No.	d	x	y
4600	8	7.354	0.092
4601	10	17.165	0.208
4602	8	17.180	0.223
4603	10	18.594	0.818
4604	8	1.182	1.767
4605	13	5.584	1.984
4606	22	8.940	1.858
4607	32	9.088	1.876
4608	11	10.409	1.632
4609	8	20.988	1.940
4610	25	0.012	2.960
4611	12	0.976	2.956
4612	23	4.459	2.067
4613	12	6.800	2.161
4614	28	8.478	2.885
4615	30	9.838	2.498
4616	10	13.593	2.436
4617	12	13.768	2.722
4618	10	13.847	2.537
4619	15	21.166	2.966
4620	33	9.489	3.548
4621	13	10.748	3.648
4622	25	18.326	3.381
4623	11	19.324	3.695
4624*	42	22.116	3.279
4625	8	4.881	4.818
4626	20	12.042	4.684
4627	12	13.154	4.032
4628	24	21.382	4.884
4629	22	6.804	5.066
4630	10	7.539	5.133
4631	9	8.666	5.222
4632	14	9.881	5.494
4633	15	11.838	5.646
4634	10	22.514	5.107
4635	14	0.290	6.818
4636	8	4.872	6.596
4637	8	6.684	6.713
4638	14	7.137	6.359
4639*	42	15.327	6.523
4640	18	15.754	6.424
4641*	70	17.449	6.076
4642	14	18.896	6.546
4643	9	0.853	7.466
4644	10	1.094	7.603
4645	8	1.770	7.100
4646	8	7.502	7.034
4647	20	10.950	7.220
4648*	51	11.007	7.026
4649	22	13.078	7.156
4650	10	14.200	7.622
4651	37	16.274	7.756
4652	10	19.376	7.709
4653	8	21.046	7.046
4654*	40	4.096	8.204
4655	8	9.482	8.999



4656*	36	9.744	8.102
4657	13	10.336	8.892
4658	21	10.524	8.940
4659	10	19.125	8.676
4660	25	6.787	9.224
4661	29	7.399	9.230
4662*	78	11.030	9.493
4663	33	12.704	9.428
4664	8	20.941	9.792
4665	25	22.050	9.922
4666*	31	23.832	9.874
4667	9	6.921	10.608
4668	8	19.072	10.243
4669	14	21.815	10.551
4670	12	3.148	11.788
4671	8	3.254	11.454
4672	36	7.446	11.861
4673	11	9.718	11.348
4674	30	11.564	11.047
4675	20	15.928	11.170
4676	12	16.019	11.786
4677	13	21.409	11.630
4678	10	22.786	11.494
4679	25	22.962	11.968
4680*	37	3.677	12.287
4681	12	16.264	12.986
4682	12	17.028	12.722
4683	15	23.124	12.590
4684	21	24.462	12.886
4685*	37	2.380	13.786
4686	14	5.884	13.350
4687	8	7.038	13.598
4688	23	9.729	13.694
4689	34	19.530	13.104
4690	13	23.294	13.662
4691	11	25.268	13.719
4692	23	1.516	14.502
4693	8	2.994	14.337
4694	16	4.504	14.608
4695	12	7.500	14.424
4696	13	9.272	14.584
4697	8	15.746	14.688
4698	14	17.000	14.582
4699	30	18.278	14.508
4700	12	20.658	14.990
4701	8	0.365	15.644
4702	10	7.446	15.173
4703	22	9.374	15.507
4704*	46	15.153	15.012
4705	14	17.742	15.357
4706	13	19.756	15.358
4707	9	19.910	15.522
4708	16	2.064	16.601
4709	17	3.111	16.296
4710*	40	19.748	16.762
4711	9	21.325	16.232
4712	23	21.618	16.066
4713	12	23.428	16.650
4714	12	23.670	16.088
4715	10	5.518	17.548
4716	15	9.257	17.696
4717	10	9.833	17.664
4718	20	14.688	17.400
4719	23	17.157	17.610
4720	8	19.003	17.200
4721	17	19.844	17.746
4722	12	22.597	17.902
4723	11	0.844	18.517
4724	11	1.166	18.578
4725	26	8.626	18.954
4726	10	9.190	18.812
4727	24	12.100	18.142
4728	13	14.675	18.307
4729	23	17.532	18.824

4730	58	0.188	19.428
4731*	43	1.150	19.186
4732*	38	5.678	19.476
4733	14	16.976	19.169
4734	12	20.938	19.730
4735	12	23.431	19.922
4736	11	8.749	20.910
4737	20	9.162	20.562
4738	17	13.076	20.192
4739	18	13.340	20.790
4740	15	18.147	20.348
4741	10	24.594	20.330
4742	22	6.472	21.656
4743	12	7.430	21.758
4744	11	8.647	21.228
4745	18	12.250	21.926
4746*	33	12.914	21.913
4747	11	13.440	21.624
4748	14	14.736	21.282
4749	13	18.667	21.996
4750	16	23.476	21.003
4751	22	25.672	21.316
4752*	38	2.365	22.321
4753	13	20.562	22.580
4754	24	22.141	22.078
4755	10	25.917	22.028
4756*	40	5.894	23.848
4757	17	7.366	23.480
4758	9	12.282	23.527
4759	14	13.252	23.586
4760	27	14.246	23.506
4761	9	16.415	23.323
4762	8	16.944	23.388
4763	30	17.518	23.477
4764*	34	21.423	23.132
4765	12	23.824	23.354
4766	9	4.277	24.782
4767	19	12.480	24.088
4768	8	17.750	24.781
4769	18	18.616	24.259
4770	48	25.232	24.256
4771	11	2.361	25.338
4772	11	3.560	25.831
4773	19	10.953	25.944
4774	13	22.944	25.090

**R.A. 2<sup>h</sup> 44<sup>m</sup>**

Plate 390; 1914 Dec. 21.

*Provisional Constants.*

A	B	C
-0.1738	+0.0534	-1.074

D	E	F
-0.00550	-0.1761	+0.4675

 $Mag.=15.9-1.09\sqrt{d}$ 

No.	d	x	y
4800	14	0.130	0.516
4801	11	10.894	0.854

4802	28	14.530	0.913
4803	30	19.208	0.349
4804	14	19.760	0.202
4805	12	3.332	1.704
4806	18	8.856	1.521
4807	8	9.654	1.244
4808	8	16.989	2.112
4809	10	20.985	2.426
4810	23	9.268	3.634
4811	13	19.868	3.404
4812	13	14.890	4.806
4813	17	18.645	4.730
4814	28	21.865	4.038
4815	9	5.716	5.957
4816	25	20.876	5.454
4817	13	24.350	5.092
4818	12	6.450	6.060
4819*	18	8.348	6.678
4820	38	8.656	6.014
4821	15	23.347	6.838
4822	9	5.070	7.425
4823	8	10.331	7.010
4824	15	10.476	7.000
4825	10	12.084	7.470
4826	16	13.508	7.336
4827*	38	14.532	7.944
4828*	39	18.364	7.582
4829	21	5.636	8.208
4830	22	14.372	8.869
4831	16	15.712	8.378
4832	9	18.749	8.593
4833	19	19.406	8.162
4834	10	23.682	8.174
4835	13	2.860	9.642
4836	16	10.558	9.315
4837	9	23.211	9.212
4838	10	24.436	9.614
4839*	25	1.089	10.579
4840	20	4.567	10.232
4841	26	13.300	10.170
4842	12	13.545	10.975
4843	26	19.900	10.787
4844*	37	4.476	11.784
4845	21	9.494	11.645
4846*	40	14.966	11.956
4847	8	18.124	11.896
4848	17	21.320	11.270
4849	15	25.974	11.928
4850	22	0.240	12.699
4851	23	21.662	12.040
4852	16	23.232	12.326
4853	12	0.410	13.325
4854	17	1.762	13.608
4855	23	6.633	13.419
4856	25	9.223	13.574
4857	19	15.504	13.566
4858	9	16.039	13.134
4859	14	22.832	13.494
4860*	60	24.358	13.472
4861	22	4.067	14.004
4862	12	5.736	14.268
4863*	31	15.278	14.300
4864	14	18.450	14.480
4865	25	18.584	14.047
4866	24	22.953	14.070
4867	24	25.228	14.066
4868	11	4.898	15.052
4869	11	6.165	15.891
4870	11	10.470	15.270
4871*	42	12.734	15.851
4872*	39	14.710	15.975
4873	18	15.608	15.177
4874	12	25.580	15.540
4875	8	1.005	16.842

4876	10	6.120	16.620
4877	12	7.568	16.170
4878	8	18.690	16.717
4879	20	22.320	16.452
4880	11	24.331	16.438
4881	20	6.610	17.993
4882	11	7.290	17.405
4883	11	8.451	17.392
4884	18	10.532	17.792
4885	8	11.031	17.974
4886	11	13.058	17.196
4887	10	21.030	17.220
4888	13	23.113	17.880
4889	17	4.478	18.418
4890	27	20.548	18.650
4891	8	21.156	18.526
4892	12	22.298	18.475
4893	14	23.524	18.951
4894	25	5.074	19.358
4895	15	6.256	19.700
4896	8	9.974	19.758
4897	11	10.051	19.044
4898	24	12.803	19.280
4899	9	14.646	19.386
4900*	40	14.746	19.818
4901	19	19.248	19.503
4902	15	22.354	19.184
4903	12	3.406	20.578
4904	11	9.758	20.537
4905	20	9.932	20.654
4906	12	9.995	20.935
4907	17	10.936	20.234
4908	21	21.485	20.422
4909*	46	21.712	20.950
4910	13	0.874	21.800
4911	11	3.920	21.224
4912	10	5.136	21.626
4913	8	5.394	21.572
4914	31	11.126	21.880
4915*	41	15.750	21.346
4916	11	16.546	21.667
4917	18	17.738	21.692
4918	11	19.737	21.334
4919	18	3.090	22.088
4920	25	4.590	22.329
4921	15	5.156	22.624
4922*	37	9.450	22.480
4923	10	17.458	22.406
4924	19	18.748	22.032
4925	14	19.015	22.260
4926	13	24.779	22.491
4927	12	0.920	23.438
4928	23	8.086	23.390
4929	9	12.930	23.363
4930	9	23.698	23.878
4931	11	23.795	23.608
4932	14	9.138	24.107
4933*	38	9.376	24.658
4934	37	11.813	24.540
4935	28	12.344	24.853
4936	13	17.030	24.772
4937	11	17.089	24.196
4938	35	17.631	24.500
4939	24	23.290	24.178
4940	16	23.689	24.008
4941	48	2.674	25.055
4942	8	3.671	25.216
4943	24	8.590	25.557

**R.A. 2<sup>h</sup> 52<sup>m</sup>**

Plate 837; 1916 Nov. 25.

*Provisional Constants.*

A	B	C
-0.02540	+0.0645	+0.0670

D	E	F
-0.00722	-0.02563	-1.167

 $Mag.=16.5-1.09\sqrt{d}$ 

No.	d	x	y
5000	12	4.500	0.431
5001	12	11.624	0.112
5002	15	14.417	0.524
5003	18	14.958	0.350
5004	25	19.480	0.881
5005	12	21.770	0.400
5006	8	24.302	0.144
5007	22	15.211	1.102
5008	12	1.267	2.219
5009	10	2.575	2.577
5010	15	4.914	2.786
5011	18	13.181	2.323
5012*	57	13.638	2.254
5013*	42	17.761	2.957
5014	11	18.230	2.917
5015	14	24.322	2.226
5016	12	15.894	3.196
5017*	62	16.544	3.587
5018	15	1.884	4.588
5019	29	3.654	4.536
5020	16	4.502	4.425
5021	15	6.575	4.834
5022	8	6.962	4.162
5023*	40	7.982	4.456
5024	10	9.166	4.248
5025	22	9.956	4.153
5026	12	15.437	4.130
5027	13	4.094	5.322
5028	17	9.756	5.954
5029	10	10.558	5.552
5030	10	17.934	5.714
5031	9	23.642	5.126
5032	13	0.898	6.336
5033	8	3.933	6.957
5034*	42	4.448	6.234
5035	40	4.646	6.276
5036	21	6.256	6.098
5037	10	6.675	6.200
5038*	60	8.434	6.103
5039	10	10.265	6.749
5040*	44	10.626	6.213
5041	8	10.838	6.816
5042	10	10.860	6.804
5043	12	15.702	6.303
5044*	52	22.346	6.168
5045	12	24.430	6.924
5046	12	1.246	7.657
5047	15	5.745	7.084
5048	9	0.400	8.494
5049	14	8.507	8.779
5050	14	11.078	8.534
5051	15	11.686	8.275
5052	15	18.048	8.322
5053	12	20.388	8.366
5054	25	22.290	8.475
5055	15	2.008	9.080



5056	9	2.486	9.473	5130	12	7.925	17.429	<div>R.A. 3<sup>h</sup> 0<sup>m</sup></div> <div>Plate 363 ; 1914 Dec. 9.</div> <div>Provisional Constants.</div> <div>A            B            C</div> <div>-01759 +00050 -0062</div> <div>D            E            F</div> <div>+0004 -01758 +3291</div> <div>Mag.=16.4-1.09√d</div>	5356	20	6.790	10.076	5430	12	17.447	21.376					
5057	25	6.929	9.922	5131	15	7.933	17.804		5357	12	11.600	10.688	5431	8	19.302	21.140					
5058	10	6.932	9.884	5132	10	9.628	17.477		5358	17	1.299	11.996	5432*	27	22.000	21.740					
5059	20	10.321	9.220	5133	20	18.542	17.616		5359	14	17.773	11.442	5433	19	2.244	22.802					
5060	19	12.933	9.371	5134	10	18.819	17.116		5360*	40	20.116	11.906	5434	8	10.096	22.118					
5061	9	21.858	9.839	5135	16	0.050	18.596		5361	25	22.877	11.654	5435	9	11.566	22.844					
5062	11	23.772	10.195	5136	17	1.214	18.354		5362	12	5.001	12.890	5436	15	13.693	22.795					
5063	9	3.785	10.622	5137	26	4.376	18.285		5363	8	5.812	12.218	5437	20	24.836	22.459					
5064	12	7.616	10.558	5138	20	5.688	18.356		5364	8	12.407	12.161	5438	8	0.182	23.874					
5065	12	9.276	10.993	5139	23	9.464	18.203		5365	8	16.784	12.370	5439*	43	6.079	23.346					
5066	16	10.530	10.408	5140	8	11.960	18.908	5366	11	1.056	13.705	5440	13	6.740	23.184						
5067	22	10.768	10.975	5141	22	14.926	18.888	5367	13	4.041	13.900	5441	8	8.500	23.784						
5068	35	22.062	10.710	5142	12	5.612	19.462	5368	8	8.262	13.306	5442	11	9.595	23.655						
5069	18	0.846	11.785	5143	10	10.376	19.062	5369	22	12.370	13.060	5443	8	11.248	23.666						
5070	11	1.726	11.315	5144	24	14.414	19.113	5370*	77	15.276	13.052	5444	8	11.922	23.247						
5071	20	3.565	11.356	5145	8	14.903	19.111	5371	11	0.466	14.370	5445	23	15.928	23.584						
5072	12	7.247	11.414	5146*	30	16.476	19.474	5372	14	5.730	14.545	5446*	54	18.448	23.266						
5073	10	8.152	11.136	5147	14	17.785	19.306	5373	8	8.101	14.703	5447	12	23.936	23.734						
5074	8	9.913	11.735	5148	23	25.564	19.588	5374	8	9.236	14.825	5448	12	5.359	24.635						
5075	13	14.319	11.287	5149*	58	25.999	19.764	5375	8	12.894	14.596	5449*	36	13.486	24.328						
5076	8	15.414	11.704	5150	35	4.060	20.318	5376	14	14.192	14.716	5450	9	15.228	24.086						
5077	18	0.457	12.946	5151	11	5.372	20.346	5377	11	18.737	14.630	5451	23	19.485	24.514						
5078*	62	1.970	12.906	5152	25	6.185	20.385	5378	13	24.127	14.469	5452	9	21.326	24.494						
5079	14	3.375	12.948	5153*	28	19.419	20.888	5379	15	25.813	14.635	5453	14	6.705	25.609						
5080	9	8.033	12.474	5154	12	0.264	21.801	5380	11	2.842	15.268	5454	11	13.336	25.436						
5081	10	10.530	12.823	5155	12	0.505	21.200	5381	36	3.338	15.722	5455	25	19.134	25.135						
5082	12	11.486	12.844	5156	19	1.656	21.364	5382	10	8.350	15.356	<div>R.A. 3<sup>h</sup> 8<sup>m</sup></div> <div>Plate 439 ; 1915 Jan. 12.</div> <div>Provisional Constants</div> <div>A            B            C</div> <div>-01772 +00407 -2043</div> <div>D            E            F</div> <div>-00386 -01766 +1024</div> <div>Mag.=16.0-1.09√d</div>									
5083	10	13.838	12.879	5157	20	2.500	21.850	5383*	8	15.033	15.796										
5084*	40	14.234	12.732	5158	17	2.905	21.236	5384	33	15.940	15.792										
5085	11	17.196	12.604	5159	16	6.104	21.506	5385	8	20.227	15.399										
5086	10	19.704	12.868	5160	10	8.970	21.124	5386	15	24.916	15.796										
5087	13	20.879	12.756	5161*	35	20.814	21.935	5387	21	8.742	16.773										
5088	20	22.430	12.611	5162	11	23.930	21.144	5388	8	10.374	16.830										
5089	15	23.566	12.994	5163	35	24.250	21.001	5389	17	14.845	16.104										
5090	10	0.385	13.935	5164	8	24.318	21.802	5390	8	16.530	16.850										
5091	20	0.586	13.516	5165	10	3.219	22.516	5391	8	18.156	16.308										
5092*	25	2.846	13.486	5166	37	3.979	22.625	5392	14	0.016	17.104										
5093	11	2.888	13.918	5167	10	6.458	22.352	5393	10	1.160	17.284										
5094	13	6.270	13.494	5168	12	6.798	22.526	5394	12	4.285	17.137										
5095	12	8.196	13.146	5169	13	9.581	22.716	5395	14	6.109	17.414										
5096	8	8.902	13.036	5170	16	17.244	22.821	5396	10	6.616	17.486										
5097	11	9.814	13.108	5171	32	20.945	22.517	5397	12	6.974	17.224										
5098	23	13.615	13.168	5172	25	21.922	22.928	5398	15	7.234	17.932										
5099*	57	21.362	13.880	5173	24	24.708	22.024	5399	9	7.790	17.154										
5100*	45	22.090	13.558	5174	34	1.038	23.538	5400	20	9.560	17.110										
5101	13	22.977	13.648	5175	9	1.441	23.235	5401	8	9.954	17.617										
5102	16	3.212	14.946	5176	10	3.327	23.473	5402	8	16.366	17.839										
5103*	40	6.917	14.842	5177	12	7.801	23.435	5403	28	17.604	17.910										
5104	12	9.698	14.878	5178	10	11.309	23.584	5404	8	20.238	17.050										
5105	16	9.777	14.780	5179	11	19.428	23.662	5405	17	23.374	17.030										
5106	19	15.410	14.549	5180	11	19.643	23.574	5406	17	25.528	17.368										
5107	13	16.843	14.428	5181	40	19.763	23.634	5407	8	5.525	18.174										
5108	18	17.197	14.446	5182	11	22.088	23.545	5408	12	8.000	18.954										
5109	10	21.850	14.604	5183	15	8.241	24.375	5409	14	9.847	18.612										
5110	8	22.363	14.486	5184	35	8.520	24.784	5410	8	12.899	18.642										
5111	15	1.980	15.849	5185	10	11.544	24.704	5411	16	24.864	18.000										
5112	16	4.230	15.270	5186	10	16.990	24.378	5412	8	0.364	19.714										
5113	12	15.970	15.874	5187	40	17.326	24.764	5413	8	4.900	19.202										
5114	22	16.390	15.196	5188	24	19.942	24.806	5414	8	9.124	19.016										
5115	15	18.001	15.933	5189	8	25.065	24.687	5415	24	9.528	19.036										
5116	33	25.825	15.000	5190	15	0.440	25.870	5416	16	10.296	19.625										
5117	8	3.213	16.608	5191	11	0.746	25.044	5417	23	12.518	19.476										
5118*	41	10.906	16.912	5192	24	1.302	25.827	5418	28	24.488	19.432										
5119	28	12.018	16.264	5193	11	2.849	25.980	5419	18	3.097	20.345										
5120	14	13.949	16.121	5194	13	3.216	25.130	5420*	56	3.532	20.524										
5121	31	14.262	16.126	5195	22	5.450	25.750	5421	20	17.915	20.966										
5122	17	15.466	16.312	5196	19	8.395	25.828	5422	10	1.454	21.918										
5123	18	22.523	16.358	5197	10	9.182	25.126	5423	29	1.778	21.776										
5124	11	23.655	16.544	5198	10	13.750	25.913	5424	8	3.696	21.908										
5125	8	0.394	16.316					5425	18	7.268	21.029										
5126	19	0.789	17.296					5426	11	8.089	21.072										
5127	10	4.554	17.285					5427	13	8.886	21.626										
5128	11	6.646	17.466					5428	11	14.420	21.906										
5129	18	7.235	17.280					5429	8	14.592	21.044										



5512	18	9.468	1.245	5586	19	0.717	16.808	5752	17	23.866	8.718	5826	8	6.484	20.594
5513	11	11.284	1.186	5587	20	13.795	16.379	5753	21	24.085	8.250	5827	8	6.916	20.604
5514	19	12.137	1.164	5588	12	22.500	16.619	5754	28	24.254	8.646	5828	11	7.196	20.708
5515*	26	19.028	1.166	5589	15	2.223	17.757	5755	29	4.415	9.186	5829	8	9.728	20.152
5516	14	0.065	2.747	5590	17	2.878	17.116	5756	26	5.534	9.840	5830*	42	22.565	20.191
5517	47	8.614	2.456	5591	11	11.565	17.153	5757	17	7.968	9.717	5831	24	1.196	21.478
5518	10	16.327	2.144	5592	22	14.642	17.156	5758*	40	8.555	9.844	5832	17	3.880	21.224
5519	24	24.522	2.577	5593*	46	15.614	17.634	5759	9	10.827	9.616	5833*	45	9.585	21.818
5520	20	7.606	3.652	5594	14	15.965	17.600	5760	26	12.975	9.660	5834	8	15.710	21.342
5521	31	16.804	3.562	5595	23	4.626	18.196	5761	26	14.172	9.627	5835*	76	20.533	21.904
5522	21	17.232	3.130	5596*	34	8.609	18.070	5762*	41	16.524	9.558	5836	31	21.988	21.099
5523	13	5.356	4.122	5597	8	13.586	18.958	5763	13	17.720	9.530	5837	10	22.262	21.394
5524	12	21.784	4.446	5598	16	15.381	18.740	5764	11	22.000	9.404	5838	39	24.330	21.146
5525	9	25.766	4.679	5599*	31	16.660	18.370	5765	39	0.763	10.900	5839	12	0.964	22.214
5526	9	0.551	5.191	5600	8	18.203	18.894	5766	25	7.592	10.373	5840	27	5.667	22.367
5527*	30	2.075	5.876	5601	13	21.172	18.920	5767	17	13.779	10.896	5841	43	5.931	22.809
5528*	47	3.154	5.772	5602	23	1.867	19.194	5768	8	18.716	10.574	5842	28	10.940	22.326
5529	10	6.457	5.445	5603*	29	7.699	19.137	5769	22	25.480	10.666	5843*	70	13.381	22.914
5530	26	6.600	5.266	5604	11	17.301	19.552	5770	26	0.356	11.678	5844	8	18.060	22.860
5531	24	6.802	5.503	5605	21	5.060	20.626	5771	25	2.579	11.985	5845	8	20.247	22.288
5532*	68	8.731	5.800	5606	12	10.414	20.080	5772	18	3.404	11.432	5846	24	22.100	22.050
5533*	42	12.520	5.248	5607	20	13.153	20.050	5773	22	14.545	11.924	5847	31	22.994	22.268
5534	11	13.366	5.846	5608	13	15.800	20.406	5774	23	15.756	11.699	5848	8	2.154	23.638
5535	15	14.668	5.082	5609	28	24.054	20.620	5775	33	16.201	11.063	5849	10	4.744	23.908
5536	10	21.756	5.212	5610	8	20.338	21.646	5776	31	16.727	11.969	5850	8	7.281	23.235
5537	11	22.229	5.399	5611	18	23.246	21.700	5777	33	21.868	11.574	5851	10	8.426	23.324
5538	9	1.701	6.938	5612	8	25.950	21.472	5778	14	0.344	12.945	5852*	42	11.158	23.401
5539*	49	11.525	6.158	5613	16	2.258	22.216	5779	36	0.853	12.659	5853	21	13.003	23.718
5540	26	22.826	6.828	5614	16	5.544	22.280	5780	37	3.686	12.874	5854	20	13.136	23.572
5541	9	23.502	6.922	5615*	38	8.727	22.426	5781	10	7.256	12.576	5855	10	17.671	23.366
5542	35	25.637	6.106	5616	8	11.094	22.562	5782	22	12.772	12.100	5856	10	18.035	23.200
5543	10	14.182	7.271	5617	21	15.920	22.760	5783	15	13.426	12.137	5857	27	19.606	23.300
5544	13	17.774	7.310	5618	34	16.784	22.261	5784	17	19.525	12.838	5858	19	25.350	23.122
5545	8	22.896	7.292	5619	8	23.010	22.440	5785	14	19.770	12.646	5859	49	4.668	24.472
5546	10	0.187	8.047	5620	12	5.294	23.506	5786	12	23.416	12.937	5860*	42	6.064	24.332
5547	11	3.404	8.484	5621	8	8.628	23.014	5787	8	8.187	13.108	5861	37	6.630	24.202
5548	24	12.548	8.890	5622	10	9.069	23.449	5788	28	10.876	13.940	5862	11	13.956	24.938
5549	14	3.018	9.516	5623	13	9.707	23.806	5789	10	23.072	13.763	5863	17	15.252	24.478
5550	10	4.440	9.502	5624	8	11.660	23.570	5790	13	24.004	13.424	5864	12	15.526	24.544
5551*	40	6.181	9.090	5625	16	11.986	23.436	5791	8	7.845	14.013	5865	31	18.957	24.614
5552	28	6.614	9.342	5626	8	12.665	23.070	5792	33	8.068	14.214	5866	10	19.910	24.974
5553	22	12.803	9.451	5627	14	16.219	23.507	5793	11	9.755	14.745	5867	43	23.743	24.338
5554	22	16.468	9.396	5628	27	20.974	23.500	5794	15	12.559	14.966	5868	8	24.270	24.362
5555	38	25.586	9.074	5629	10	11.916	24.855	5795*	32	14.030	14.170	5869	10	5.918	25.494
5556	10	13.348	10.278	5630	13	13.368	24.155	5796*	41	19.250	14.884	5870	10	5.944	25.483
5557	23	0.148	11.440	5631*	46	14.239	24.671	5797	11	19.514	14.180	5871	8	12.032	25.754
5558	8	13.470	11.498	5632*	39	15.075	24.525	5798	17	24.520	14.875	5872	8	20.667	25.792
5559	9	20.523	11.865	5633	27	10.339	25.660	5799	19	9.336	15.664				
5560*	44	20.818	11.028	5634	15	12.377	25.466	5800	8	10.633	15.375				
5561	16	22.490	11.818	5635	16	14.680	25.270	5801	11	15.840	15.858				
5562	23	22.905	11.038	5636	9	17.594	25.820	5802	11	20.979	15.316				
5563	10	25.562	11.598					5803	15	24.201	15.434				
5564*	42	10.055	12.298					5804	14	0.410	16.443				
5565*	30	12.124	12.720					5805	30	4.998	16.853				
5566	11	13.936	12.063					5806	8	7.214	16.920				
5567	20	16.730	12.420					5807	8	8.248	16.390				
5568	25	22.982	12.810					5808	8	12.060	16.428				
5569	16	24.724	12.146					5809	8	16.246	16.700				
5570	18	7.342	13.364					5810	21	18.214	16.410				
5571	10	10.663	13.406					5811	20	22.270	16.128				
5572*	36	17.240	13.260					5812	32	22.711	16.061				
5573	26	25.834	13.052					5813	8	11.092	17.194				
5574	8	0.952	14.150					5814	18	13.764	17.478				
5575	11	1.436	14.237					5815	8	19.545	17.404				
5576	14	3.128	14.380					5816	20	8.618	18.590				
5577	14	3.390	14.460					5817	8	9.212	18.131				
5578	15	10.630	14.025					5818	19	11.374	18.525				
5579*	35	12.588	14.634					5819	22	15.844	18.962				
5580	15	20.236	14.174					5820	22	25.064	18.480				
5581	15	2.246	15.552					5821	9	7.820	19.912				
5582	10	7.290	15.656					5822	22	9.996	19.601				
5583	23	12.658	15.092					5823	29	11.600	19.376				
5584	22	14.883	15.859					5824	12	24.284	19.711				
5585*	72	21.506	15.150					5825	37	1.988	20.395				

R.A. 3<sup>h</sup> 16<sup>m</sup>

Plate 777 ; 1916 Oct. 20.

Provisional Constants.

A	B	C
-0.02576	+0.00259	+0.2540

D	E	F
-0.00260	-0.02576	-0.0447

Mag.=16.6-1.09√d

No.	d	x	y
5700	12	3.573	0.416
5701	29	4.666	0.394
5702	8	10.852	0.616
5703	14	11.967	0.950
5704	8	12.219	0.617
5705*	75	23.486	0.952
5706	25	7.365	1.826
5707	14	20.514	1.122
5708	37	2.296	2.492
5709	32	4.173	2.182
5710	17	7.977	2.514
5711	8	12.635	2.741
5712*	57	15.218	2.728
5713	34	17.494	2.076
5714	9	2.230	3.243
5715	8	9.881	3.746
5716	9	13.295	3.695
5717	8	14.664	3.136
5718	30	17.126	3.784
5719	28	22.674	3.031
5720	10	23.576	3.102
5721	14	3.550	4.568
5722	9	3.785	4.919
5723	10	4.245	4.054
5724	8	16.246	4.842
5725	35	17.382	4.134
5726*	38	18.264	4.814
5727	10	21.043	4.306
5728	20	0.045	5.312
5729*	49	3.427	5.986
5730	28	4.265	5.676
5731	13	5.874	5.696
5732	9	8.620	5.022
5733	14	13.246	5.0



**R.A. 3<sup>h</sup> 24<sup>m</sup>**

Plate 413; 1915 Jan. 7.

*Provisional Constants.*

A	B	C
-01765	+00901	-0585

D	E	F
-00902	-01770	+5256

*Mag.* = 16.5 - 1.09√*d*

No.	d	x	y
6001	11	6.046	0.055
6002	32	6.437	0.866
6003	22	6.615	0.944
6004	8	12.717	0.456
6005	38	16.491	0.965
6006	44	19.146	0.194
6007	13	24.633	0.156
6008*	67	0.694	1.583
6009	28	5.834	1.484
6010	10	7.086	1.216
6011	37	10.888	1.236
6012	8	11.224	1.346
6013*	44	21.986	1.600
6014*	37	6.925	2.925
6015	12	7.508	2.604
6016	10	10.314	2.826
6017	13	11.366	2.487
6018	13	12.985	2.482
6019	12	13.723	2.647
6020	13	16.042	2.876
6021	9	19.856	2.927
6022	12	0.833	3.745
6023	16	8.216	3.505
6024	13	8.406	3.444
6025	20	13.566	3.542
6026	10	15.933	3.496
6027	21	16.856	3.672
6028*	42	18.124	3.645
6029	25	18.448	3.654
6030	9	6.135	4.512
6031	18	9.156	4.924
6032	12	16.622	4.979
6033	13	4.516	5.382
6034*	37	6.934	5.814
6035	20	9.694	5.446
6036	19	9.728	5.924
6037	20	19.948	5.506
6038	22	24.744	5.785
6039	11	25.305	5.626
6040	8	12.824	6.975
6041	23	12.874	6.256
6042	12	15.736	6.199
6043	9	16.976	6.479
6044	8	18.514	6.604
6045	25	23.140	6.176
6046	18	8.080	7.940
6047*	40	12.906	7.704
6048	23	13.446	7.968
6049	11	15.169	7.968
6050	18	16.673	7.248
6051	8	17.463	7.218
6052	12	22.830	7.704
6053	21	1.424	8.923
6054	30	1.516	8.178
6055	13	2.282	8.964
6056*	38	7.044	8.142
6057	16	17.714	8.839
6058	21	24.808	8.660
6059	17	1.212	9.398
6060	23	1.604	9.318
6061	16	7.131	9.824
6062	19	8.619	9.775
6063	10	16.061	9.364
6064	19	17.366	9.832
6065	10	18.660	9.832
6066	12	3.032	10.442
6067	17	6.799	10.010
6068	17	8.356	10.903
6069	35	20.197	10.764
6070	22	22.665	10.764
6071	22	2.874	11.333
6072	22	24.386	11.606
6073	26	3.800	12.335
6074	25	5.142	12.535
6075	11	8.666	12.173
6076	36	9.801	12.202
6077	14	14.184	12.833
6078	12	15.800	12.344
6079	11	16.597	12.306
6080*	34	20.018	12.597
6081	19	23.684	12.483
6082	16	24.846	12.504
6083	11	0.827	13.661
6084	8	3.380	13.346
6085	9	9.903	13.663
6086	11	13.452	13.616
6087	17	18.112	13.910
6088	18	18.115	13.654
6089	10	25.582	13.314
6090	11	1.429	14.138
6091	15	5.955	14.294
6092	8	8.088	14.644
6093	12	8.256	14.755
6094	10	9.589	14.984
6095	17	10.250	14.672
6096	16	12.721	14.772
6097	10	16.618	14.210
6098	38	17.758	14.403
6099	19	20.275	14.034
6100*	76	20.826	14.535
6101	23	22.802	14.488
6102*	44	24.864	14.692
6103	16	1.974	15.594
6104	32	4.390	15.819
6105*	35	8.087	15.748
6106	20	22.534	15.118
6107	26	0.166	16.816
6108	11	1.664	16.156
6109	12	6.063	16.024
6110	8	9.802	16.258
6111	9	10.536	16.560
6112*	37	16.805	16.654
6113	8	17.034	16.370
6114	17	23.053	16.804
6115	16	23.959	16.742
6116	21	24.128	16.904
6117	16	2.801	17.342
6118	12	4.290	17.221
6119	13	12.982	17.476
6120	22	13.700	17.734
6121	17	14.695	17.625
6122	37	14.780	17.938
6123*	58	15.594	17.196
6124	17	25.946	17.746
6125	10	2.462	18.160
6126	18	9.132	18.152
6127	23	14.856	18.788
6128	24	15.560	18.438
6129	20	18.408	18.180
6130	12	24.348	18.537
6131	21	2.582	19.214
6132	20	15.236	19.512
6133*	55	19.825	19.135
6134	20	20.332	19.850
6135*	34	21.312	19.168
6136	23	21.452	19.433
6137	39	0.086	20.984
6138	17	1.814	20.467
6139*	40	7.468	20.788
6140	15	8.464	20.470
6141	16	11.138	20.485
6142	12	13.980	20.160
6143	18	20.087	20.607
6144	20	20.150	20.936
6145	8	20.315	20.784
6146	37	1.886	21.915
6147	13	5.086	21.114
6148	23	7.868	21.755
6149	9	8.142	21.220
6150	13	12.888	21.036
6151	17	14.582	21.857
6152	19	15.376	21.654
6153	18	15.780	21.212
6154	24	18.764	21.272
6155	22	21.874	21.976
6156	16	5.568	22.645
6157	25	12.265	22.758
6158	23	13.588	22.733
6159*	29	13.630	22.912
6160	24	15.001	22.480
6161	22	16.914	22.564
6162	22	17.172	22.165
6163	28	25.408	22.736
6164	25	0.554	23.068
6165	8	2.700	23.720
6166	23	2.949	23.895
6167	16	9.044	23.494
6168	11	11.550	23.054
6169	14	11.854	23.644
6170	15	14.928	23.365
6171	24	18.036	23.562
6172	22	20.646	23.509
6173	15	4.078	24.386
6174	18	4.564	24.320
6175	17	11.765	24.597
6176	15	13.776	24.909
6177	23	14.226	24.482
6178	9	16.282	24.482
6179	26	18.396	24.681
6180	16	21.636	24.246
6181	17	24.986	24.384
6182	40	1.350	25.144
6183	11	1.548	25.636
6184	18	1.882	25.156
6185	53	4.544	25.643
6186	26	14.341	25.106
6187	12	19.626	25.265

**R.A. 3<sup>h</sup> 32<sup>m</sup>**

Plate 377; 1914 Dec. 18.

*Provisional Constants.*

A	B	C
-01757	-00331	+0113

D	E	F
+00381	-01779	+2578

*Mag.* = 15.7 - 1.09√*d*

No.	d	x	y
6200	24	4.166	0.024
6201	33	6.486	0.565
6202	17	9.314	0.604
6203	23	14.434	0.806
6204	18	18.118	0.776
6205	19	11.228	1.858
6206	18	10.866	2.848
6207	19	11.661	2.205
6208	19	14.578	2.389
6209*	38	17.605	2.705
6210*	53	20.798	2.297
6211	20	24.152	2.718
6212	9	2.508	3.184
6213*	33	5.626	3.213
6214	22	10.602	3.444
6215	28	10.900	3.507
6216	26	15.047	3.334
6217	12	19.464	3.049
6218	16	21.619	3.594
6219	26	24.514	3.884
6220	10	6.352	4.026
6221	18	6.524	4.702
6222	13	8.218	4.715
6223	23	8.285	4.933
6224	17	9.275	4.276
6225	19	16.414	4.160
6226	19	16.974	4.892
6227*	33	19.996	4.283
6228	25	22.527	4.026
6229	18	2.116	5.738
6230	16	2.676	5.582
6231	24	8.984	5.402
6232	21	9.364	5.346
6233	9	15.972	5.073
6234	19	19.797	5.696
6235*	21	24.010	5.408
6236	23	0.514	6.128
6237	19	7.276	6.818
6238	19	7.416	6.022
6239	10	8.050	6.058
6240*	36	8.061	6.014
6241	20	16.450	6.837
6242	17	17.004	6.090
6243	15	18.864	6.612
6244	24	5.997	7.154
6245	13	7.121	7.912
6246	24	7.175	7.870
6247*	39	7.418	7.986
6248	20	22.472	7.510
6249	24	2.175	8.613
6250	18	4.320	8.628
6251	18	8.842	8.565
6252	22	11.494	8.326
6253	24	18.748	8.748
6254	27	19.872	8.500
6255*	29	22.410	8.770
6256	33	25.247	8.762
6257	13	15.415	9.859
6258	25	15.436	9.155
6259	22	20.669	9.160
6260*	43	22.085	9.296
6261	20	0.024	10.710
6262	20	1.746	11.558
6263	22	14.918	11.922
6264	20	20.034	11.688
6265	13	21.346	11.758
6266	32	25.182	11.486
6267	16	1.038	12.434
6268	13	2.205	12.454
6269	9	4.380	12.206
6270	20	10.238	12.222
6271	25	10.255	12.215
6272	12	14.993	12.840
6273	12	22.257	12.230
6274*	29	22.488	12.678
6275	11	3.868	13.930
6276	22	12.297	13.604
6277	27	16.809	13.930
6278	17	23.225	13.920
6279	21	0.155	14.438
6280*	39	2.213	14.644
6281	29	11.988	14.104
6282	18	25.337	14.



**R.A. 3<sup>h</sup> 40<sup>m</sup>**

Plate 433; 1915 Jan. 11.

Provisional Constants.

A	B	C
-01759	+00278	+0094

D	E	F
-00257	-01777	-1623

Mag. = 16.3 - 1.09√d

No.	d	x	y
6400	11	5.364	0.074
6401	9	8.746	0.096
6402	13	12.616	0.624
6403	18	14.446	0.912
6404	12	14.572	0.921
6405	10	18.940	0.116
6406	17	24.748	0.936
6407	14	6.688	1.360
6408	11	6.978	1.414
6409	23	8.334	1.985
6410	17	25.885	1.898
6411	17	1.504	2.206
6412	9	8.179	2.036
6413	15	10.976	2.168
6414	11	12.952	2.478
6415	15	13.150	2.900
6416	11	14.372	2.724
6417	20	14.714	2.560
6418	22	20.126	2.064
6419	31	20.718	2.632
6420	33	1.880	3.367
6421	22	7.508	3.688
6422	27	15.200	3.936
6423	38	23.258	3.662
6424	11	24.942	3.137
6425	25	1.403	4.902
6426	57	6.083	4.142
6427	8	9.870	4.836
6428	13	10.242	4.190
6429	12	14.318	4.418
6430	23	19.101	4.908
6431	26	19.157	4.493
6432	8	3.124	5.967
6433	22	4.252	5.267
6434	8	5.742	5.324
6435	51	7.958	5.450
6436	13	9.568	5.376
6437	23	11.530	5.440
6438	12	12.128	5.278
6439	34	12.336	5.060
6440	22	13.072	5.670
6441	12	25.196	5.145
6442	16	5.966	6.154
6443	18	10.362	6.372
6444	15	15.598	6.360
6445	22	22.029	6.534
6446	22	24.385	6.450
6447	11	25.117	6.516
6448	14	3.226	7.066
6449	8	4.563	7.234
6450	15	11.817	7.174
6451	22	16.001	7.211
6452	8	18.645	7.708
6453	17	18.711	7.908
6454	36	2.695	8.235
6455	42	3.914	8.330

6456	10	14.960	8.406
6457	25	15.494	8.857
6458	12	17.684	8.882
6459	38	17.806	8.786
6460	33	23.318	8.554
6461	24	9.640	9.302
6462	41	10.839	9.763
6463	54	14.566	9.324
6464	8	2.073	10.688
6465	28	2.674	10.964
6466	28	8.153	10.688
6467	20	11.904	10.153
6468	36	14.836	10.248
6469	17	18.128	10.481
6470	20	18.197	10.515
6471	19	23.475	10.186
6472	22	13.994	11.785
6473	8	14.950	11.254
6474	22	19.136	11.286
6475	10	19.824	11.965
6476	38	0.002	12.198
6477	35	5.598	12.146
6478	22	6.674	12.447
6479	11	11.268	12.022
6480	8	13.844	12.783
6481	21	14.364	12.749
6482	14	14.566	12.194
6483	13	14.772	12.038
6484	10	15.282	12.184
6485	25	17.386	12.525
6486	8	18.939	12.753
6487	40	22.945	12.450
6488	11	0.754	13.424
6489	21	10.738	13.326
6490	30	14.606	13.764
6491	42	16.742	13.320
6492	8	17.466	13.372
6493	25	18.846	13.954
6494	12	20.714	13.904
6495	24	21.276	13.468
6496	20	21.626	13.408
6497	29	22.195	13.584
6498	16	2.182	14.678
6499	15	2.882	14.164
6500	21	15.714	14.307
6501	14	5.280	15.720
6502	8	6.100	15.694
6503	15	13.256	15.831
6504	8	0.675	16.417
6505	42	5.172	16.994
6506	10	7.914	16.725
6507	16	21.000	16.935
6508	18	11.641	17.464
6509	18	13.974	17.593
6510	62	15.915	17.951
6511	23	17.026	17.825
6512	19	19.274	17.312
6513	8	21.595	17.674
6514	9	23.536	17.778
6515	9	25.376	17.344
6516	17	25.694	17.216
6517	13	1.394	18.697
6518	66	5.830	18.096
6519	35	6.044	18.216
6520	38	6.654	18.506
6521	8	15.720	18.301
6522	25	18.682	18.992
6523	19	20.461	18.197
6524	34	21.034	18.112
6525	12	0.452	19.710
6526	10	8.745	19.631
6527	9	12.084	19.255
6528	11	15.314	19.618
6529	37	3.444	20.748

**R.A. 3<sup>h</sup> 48<sup>m</sup>**

Plate 429; 1915 Jan. 10.

Provisional Constants.

A	B	C
-01745	+01375	-3725

D	E	F
-01355	-01771	+0387

Mag. = 17.6 - 1.09√d

No.	d	x	y
6600	8	4.634	0.054
6601	8	6.362	0.516
6602	8	10.031	0.954
6603	8	23.785	0.346
6604	26	1.714	1.166
6605	48	4.816	1.020
6606	29	8.891	1.412
6607	21	9.203	1.962
6608	17	10.500	1.220
6609	86	12.402	1.325
6610	18	12.870	1.646
6611	15	13.793	1.124
6612	9	13.867	1.554
6613	32	15.617	1.903
6614	45	17.749	1.953
6615	9	19.508	1.614
6616	9	23.552	1.282
6617	8	0.446	2.136

6618	16	2.876	2.108
6619	30	4.998	2.946
6620	44	0.284	3.924
6621	8	7.580	3.736
6622	8	9.943	3.123
6623	29	15.216	3.604
6624	28	23.716	3.207
6625	36	10.300	4.364
6626	28	11.886	4.360
6627	14	15.054	4.126
6628	9	15.075	4.468
6629	20	18.400	4.336
6630	40	23.863	4.130
6631	56	24.120	4.880
6632	10	2.258	5.367
6633	8	12.807	5.334
6634	11	16.080	5.814
6635	9	17.466	5.545
6636	8	19.954	5.235
6637	53	20.348	5.962
6638	8	21.229	5.480
6639	23	22.936	5.344
6640	8	24.558	5.628
6641	50	25.518	5.244
6642	15	1.470	6.688
6643	8	7.523	6.690
6644	46	7.766	6.614
6645	8	9.046	6.409
6646	44	9.482	6.514
6647	22	10.711	6.336
6648	13	13.682	6.970
6649	33	14.480	6.964
6650	31	15.108	6.906
6651	68	18.726	6.608
6652	36	21.478	6.504
6653	29	13.936	7.344
6654	46	0.442	8.814
6655	9	19.806	8.884
6656	23	24.602	8.026
6657	17	16.246	9.870
6658	63	18.584	9.419
6659	29	18.973	9.724
6660	49	20.168	9.115
6661	8	24.448	9.076
6662	18	25.142	9.919
6663	14	0.629	10.442
6664	8	2.670	10.902
6665	40	8.720	10.520
6666	20	16.297	10.730
6667	8	17.558	10.288
6668	15	20.678	10.620
6669	51	21.152	10.002
6670	10	15.192	11.005
6671	40	0.148	12.717
6672	59	3.946	12.107
6673	82	5.934	12.034
6674	58	6.814	12.625
6675	43	13.490	12.626
6676	13	18.308	12.426
6677	15	24.030	12.946
6678	76	5.870	13.672
6679	35	6.147	13.512
6680	16	8.326	13.963
6681	12	8.996	13.904
6682	27	22.526	13.386
6683	31	6.280	14.792
6684	8	20.567	14.258
6685	55	20.810	14.274
6686	47	4.502	15.624
6687	27	5.500	15.026
6688	31	11.736	15.917
6689	38	12.542	15.183
6690	35	16.461	15.534
6691	9	16.890	15.957



**R.A. 3<sup>h</sup> 56<sup>m</sup>**

Plate 416; 1915 Jan. 8.

*Provisional Constants.*

A	B	C
-01763	+01038	-2231

D	E	F
-01018	-01774	+1172

 $Mag. = 16.3 - 1.09\sqrt{d}$ 

No.	d	x	y
6750	17	6.363	0.907
6751	17	9.504	0.466
6752	24	11.087	0.016
6753	34	16.965	0.044
6754*	48	23.174	0.874
6755	38	25.708	0.508
6756	16	1.030	1.660
6757	14	10.096	1.445
6758*	58	21.425	1.235
6759	36	24.204	1.926
6760	13	4.347	2.764
6761	46	6.462	2.466
6762	18	7.112	2.226
6763	18	8.620	2.052
6764*	54	14.404	2.634
6765*	45	15.164	2.159
6766	19	16.144	2.202
6767	29	17.826	2.190
6768	16	17.846	2.206
6769	19	24.982	2.131
6770	18	0.852	3.731
6771	27	1.204	3.586
6772	36	5.407	3.128
6773	12	10.576	3.792
6774	13	17.400	3.251
6775	25	19.330	3.119
6776	34	1.355	4.508
6777	18	4.054	4.974
6778	23	6.454	4.976
6779	24	6.714	4.554
6780	10	7.806	4.606
6781	21	8.976	4.085
6782	19	12.472	4.205
6783	17	13.602	4.283
6784*	36	16.498	4.933
6785*	18	17.644	4.522
6786	26	23.862	4.720
6787	26	0.440	5.734
6788	38	1.614	5.254
6789	21	1.936	5.358
6790*	40	3.020	5.612
6791*	29	14.714	5.054
6792	26	17.874	5.356
6793	21	19.636	5.760
6794	12	20.262	5.244
6795	18	3.944	6.096
6796	23	4.030	6.526
6797	17	7.934	6.078
6798	16	9.456	6.582
6799	25	10.136	6.764
6800	13	11.723	6.723
6801	19	14.800	6.055
6802*	42	18.746	6.400
6803	17	20.509	6.114
6804	14	22.214	6.538
6805	19	2.119	7.168

6806*	40	5.756	7.286
6807	25	6.346	7.716
6808	27	16.924	7.225
6809	29	21.757	7.088
6810	26	24.996	7.881
6811	23	1.106	8.935
6812	25	2.124	8.396
6813	13	3.245	8.368
6814	17	8.034	8.014
6815	23	9.156	8.534
6816	16	10.816	8.074
6817	16	11.860	8.501
6818	18	16.459	8.641
6819	22	18.556	8.378
6820	30	24.490	8.976
6821	17	5.494	9.920
6822	23	8.342	9.436
6823	21	10.670	9.677
6824	19	13.430	9.766
6825	15	19.165	9.917
6826	12	2.426	10.312
6827	25	2.674	10.286
6828	14	11.324	10.999
6829	13	20.388	10.390
6830	23	20.837	10.074
6831	26	1.298	11.995
6832	20	7.936	11.719
6833	29	11.233	11.988
6834	24	11.935	11.526
6835	9	18.942	11.411
6836	20	20.014	11.135
6837	19	20.796	11.084
6838	21	22.135	11.020
6839*	74	22.816	11.050
6840	12	0.960	12.434
6841	16	6.284	12.540
6842	14	7.916	12.993
6843	16	13.986	12.934
6844	33	19.150	12.693
6845	22	21.699	12.085
6846	17	25.536	12.496
6847	21	0.081	13.776
6848	24	1.187	13.178
6849	18	1.584	13.324
6850	11	1.628	13.486
6851	23	4.598	13.247
6852*	52	10.686	13.669
6853	15	13.770	13.446
6854	15	17.376	13.058
6855*	36	21.360	13.856
6856	18	24.200	13.176
6857	40	25.840	13.934
6858	12	0.666	14.197
6859	15	2.938	14.215
6860	16	4.036	14.248
6861	29	4.701	14.572
6862	16	8.416	14.693
6863	12	9.932	14.014
6864	38	9.964	14.182
6865	15	19.744	14.477
6866	26	21.872	14.606
6867	22	23.005	14.692
6868*	27	24.736	14.088
6869	20	0.005	15.254
6870	14	3.070	15.733
6871	12	4.199	15.931
6872	18	13.948	15.108
6873	13	17.210	15.404
6874*	42	19.530	15.074
6875	22	19.946	15.238
6876	20	20.896	15.912
6877	19	21.100	15.508
6878	16	21.900	15.756
6879	20	25.425	15.224

6954	18	20.462	24.050
6955	22	21.065	24.866
6956	30	23.676	24.756
6957	19	5.053	25.365
6958	22	5.402	25.916
6959	36	6.764	25.733
6960	13	7.920	25.147
6961	15	8.782	25.656
6962	26	12.170	25.685

**R.A. 4<sup>h</sup> 4<sup>m</sup>**

Plate 364; 1914 Dec. 9.

*Provisional Constants.*

A	B	C
-01774	+00290	+1248

D	E	F
-00299	-01780	+4103

 $Mag. = 15.6 - 1.09\sqrt{d}$ 

No.	d	x	y
7000	22	3.575	0.437
7001	12	10.818	0.280
7002	25	14.754	0.284
7003	12	19.784	0.834
7004	10	19.936	0.045
7005	12	23.658	0.936
7006	10	24.298	0.298
7007*	26	0.829	1.400
7008*	23	3.378	1.024
7009*	43	3.959	1.166
7010	21	5.754	1.914
7011	16	6.157	1.862
7012	18	7.810	1.612
7013	9	7.904	1.816
7014	11	10.458	1.104
7015	8	14.834	1.633
7016	12	21.004	1.900
7017	10	25.906	1.315
7018	26	1.866	2.450
7019	13	2.649	2.651
7020	13	5.345	2.296
7021	33	7.312	2.507
7022	18	8.464	2.704
7023	19	8.518	2.696
7024	11	10.966	2.054
7025	18	14.430	2.855
7026	8	15.568	2.676
7027	8	16.956	2.447
7028	16	17.700	2.665
7029	8	4.733	3.898
7030	9	9.041	3.082
7031	11	10.100	3.370
7032	11	12.443	3.364
7033*	53	14.300	3.166
7034	8	17.190	3.521
7035*	36	17.776	3.073
7036*	24	19.285	3.425
7037	10	23.677	3.164
7038	8	5.543	4.556
7039*	53	8.437	4.396

7040	18	11.638	4.050
7041	20	11.846	4.455
7042	11	20.716	4.018
7043	9	20.945	4.725
7044*	58	21.041	4.021
7045	10	1.225	5.364
7046	17	1.534	5.243
7047	11	4.645	5.451
7048	16	7.784	5.960
7049*	26	8.072	5.925
7050	14	8.378	5.236
7051	13	10.062	5.272
7052	8	10.078	5.954
7053	13	10.923	5.410
7054	22	19.234	5.484
7055	14	19.378	5.768
7056	8	20.980	5.838
7057	12	21.867	5.780
7058	17	25.856	5.396
7059	11	13.390	6.800
7060	15	15.513	6.202
7061*	30	19.832	6.692
7062	9	24.762	6.274
7063	8	6.115	7.328
7064	8	9.008	7.193
7065	10	10.574	7.580
7066	8	12.932	7.750
7067	25	13.478	7.795
7068	20	19.644	7.425
7069	11	24.365	7.486
7070	18	2.677	8.399
7071	11	6.524	8.946
7072	17	11.646	8.006
7073*	150	15.057	8.995
7074	11	16.073	8.800
7075	17	17.292	8.214
7076	16	20.423	8.006
7077	11	21.896	8.398
7078	20	2.174	9.498
7079	8	4.552	9.068
7080	10	12.015	9.268
7081	8	14.090	9.980
7082	8	14.096	9.029
7083*	58	14.579	9.208
7084	14	14.715	9.160
7085	16	14.970	9.240
7086	10	15.770	9.430
7087	17	18.224	9.528
7088	11	19.184	9.666
7089	15	21.316	9.720
7090	13	6.700	10.120
7091	10	7.474	10.857
7092	10	8.624	10.729
7093	20	10.666	10.551
7094	9	14.050	10.458
7095*	32	16.650	10.708
7096	16	17.609	10.414
7097	18	20.168	10.440
7098	8	24.120	10.388
7099	10	25.310	10.674
7100	8	0.246	11.198
7101	68	0.498	11.576
7102	8	8.028	11.177
7103	20	8.702	11.028
7104	9	8.867	11.532
7105	9	13.490	11.665
7106	8	17.823	11.595
7107	20	18.284	11.193
7108	14	18.566	11.113
7109	8	19.392	11.634
7110	8	19.716	11.944
7111	12	10.836	12.069
7112	9	12.038	12.026
7113	12	12.134	12.210



7114*	30	12.146	12.560	7188	18	4.637	20.190	7256	11	10.665	1.893	7330	17	14.850	10.680	7404	12	0.024	21.845
7115	17	13.558	12.857	7189	19	10.300	20.911	7257	14	11.051	1.962	7331	17	7.508	11.752	7405*	61	5.015	21.770
7116	8	20.332	12.658	7190	16	16.400	20.829	7258*	60	15.916	1.566	7332	10	9.452	11.196	7406	21	10.545	21.166
7117	8	23.087	12.222	7191	19	16.795	20.981	7259	8	8.908	2.586	7333	13	11.016	11.192	7407*	57	14.700	21.324
7118	14	23.224	12.493	7192	10	21.686	20.200	7260	29	10.682	2.112	7334*	40	13.738	11.584	7408*	63	22.386	21.424
7119	24	24.224	12.325	7193	14	22.861	20.024	7261	26	12.940	2.855	7335	21	13.766	11.713	7409	8	24.670	21.342
7120*	35	24.782	12.134	7194	32	23.034	20.134	7262	11	18.646	2.214	7336	31	19.130	11.957	7410*	54	24.764	21.349
7121	14	1.892	13.700	7195	8	23.083	20.713	7263	35	21.464	2.830	7337	23	24.780	11.243	7411	21	0.264	22.346
7122	8	7.472	13.422	7196	12	4.746	21.587	7264	9	22.175	2.111	7338	27	1.512	12.414	7412	25	4.085	22.086
7123	8	12.212	13.630	7197	14	6.722	21.978	7265	26	4.522	3.424	7339*	40	2.064	12.216	7413	18	5.414	22.634
7124	8	13.566	13.985	7198	8	8.356	21.366	7266	14	5.610	3.948	7340*	50	16.342	12.862	7414*	41	6.481	22.086
7125	13	14.304	13.970	7199	10	9.890	21.384	7267	15	15.813	3.120	7341	9	22.238	12.743	7415	9	6.532	22.676
7126*	24	14.570	13.781	7200	15	10.153	21.723	7268	19	22.050	3.981	7342	9	0.793	13.825	7416	10	9.684	22.327
7127	10	15.900	13.281	7201*	42	15.692	21.851	7269*	64	5.692	4.300	7343*	40	2.570	13.445	7417	10	10.870	22.569
7128	10	16.845	13.260	7202	10	18.805	21.340	7270	10	8.292	4.064	7344*	34	3.688	13.910	7418	8	17.939	22.738
7129	8	18.518	13.949	7203	10	19.571	21.830	7271	18	9.000	4.485	7345	21	4.474	13.703	7419	44	19.583	22.363
7130	14	20.690	13.229	7204	15	22.616	21.739	7272	14	13.930	4.925	7346	24	15.260	13.788	7420	28	20.030	22.673
7131	8	22.352	13.081	7205	12	9.558	22.568	7273	22	17.764	4.172	7347	13	15.280	13.688	7421	53	21.723	22.624
7132	8	23.222	13.992	7206	10	11.983	22.325	7274	18	18.899	4.780	7348	20	17.662	13.118	7422	12	7.235	23.794
7133	8	23.739	13.070	7207	18	13.145	22.398	7275	13	19.114	4.818	7349	8	18.090	13.315	7423	8	17.352	23.554
7134	16	23.486	13.728	7208*	47	15.904	22.155	7276	40	21.833	4.504	7350*	61	24.565	13.926	7424	10	0.771	24.461
7135	8	24.862	13.907	7209	9	18.274	22.736	7277	17	3.066	5.464	7351	22	2.287	14.960	7425	8	4.927	24.244
7136	32	25.272	13.370	7210	11	18.376	22.980	7278	12	4.302	5.341	7352*	39	9.730	14.944	7426	11	7.886	24.978
7137*	24	2.435	14.604	7211	8	20.958	22.802	7279	18	10.495	5.170	7353	11	11.850	14.234	7427*	37	9.023	24.414
7138*	34	3.534	14.450	7212	18	21.906	22.568	7280*	48	13.699	5.368	7354	10	17.643	14.781	7428	8	16.512	24.573
7139*	31	9.478	14.192	7213	21	22.851	22.243	7281	16	20.665	5.909	7355	20	17.669	14.973	7429*	71	19.280	24.344
7140	18	14.582	14.117	7214	29	12.134	23.834	7282	13	20.930	5.780	7356	12	19.909	14.210	7430	8	22.787	24.136
7141	10	15.194	14.450	7215	9	13.454	23.487	7283	8	21.916	5.335	7357*	28	21.929	14.350	7431*	58	24.315	24.660
7142	12	15.940	14.890	7216	13	14.068	23.312	7284*	63	23.514	5.656	7358	21	5.810	15.611	7432	26	25.336	24.251
7143*	39	16.128	14.886	7217*	50	14.448	23.468	7285	16	25.330	5.285	7359	24	6.808	15.045	7433	14	3.726	25.200
7144	17	18.049	14.244	7218	9	16.045	23.742	7286	8	1.977	6.355	7360	28	7.034	15.698	7434	14	8.864	25.752
7145	23	19.674	14.248	7219	9	22.886	23.528	7287*	73	8.413	6.456	7361	19	7.181	15.486	7435	18	9.499	25.040
7146*	34	20.826	14.420	7220	8	15.504	24.905	7288	8	8.513	6.209	7362	12	7.400	15.906	7436	27	12.308	25.039
7147	16	21.908	14.630	7221	15	15.638	24.542	7289*	56	8.998	6.642	7363	15	9.840	15.760	7437	80	19.980	25.999
7148	19	24.968	14.879	7222	15	15.831	24.020	7290	10	9.944	6.296	7364	13	11.138	15.284	7438	14	21.104	25.479
7149	11	0.706	15.214	7223	25	15.848	24.752	7291	15	10.226	6.768	7365*	39	16.740	15.647				
7150	14	3.126	15.742	7224	14	1.407	25.274	7292	27	11.941	6.937	7366	13	17.620	15.246				
7151	9	3.856	15.984	7225	22	10.705	25.626	7293	21	18.094	6.708	7367	20	17.902	15.844				
7152	13	8.784	15.832	7226	13	10.899	25.754	7294*	33	21.750	6.542	7368	35	21.860	15.723				
7153	11	14.026	15.070	7227*	30	13.588	25.005	7295	8	0.082	7.616	7369	12	22.220	15.796				
7154	15	17.182	15.486	7228*	29	19.205	25.380	7296	10	9.395	7.814	7370*	50	22.360	15.196				
7155	10	18.924	15.348	7229	10	20.942	25.753	7297	11	9.990	7.458	7371	24	2.249	16.250				
7156	15	20.550	15.770	7230	11	22.380	25.164	7298	10	10.174	7.210	7372	20	7.617	16.236				
7157	11	22.903	15.695					7299	12	11.125	7.972	7373	28	13.834	16.975				
7158	8	24.966	15.150					7300	39	13.168	7.712	7374*	42	14.072	16.744				
7159	8	9.912	16.122					7301	10	20.482	7.386	7375*	62	17.100	16.760				
7160*	23	10.452	16.611					7302	20	21.786	7.175	7376	9	20.302	16.055				
7161	8	12.768	16.602					7303	31	22.602	7.516	7377	44	23.856	16.686				
7162	20	12.534	16.226					7304	36	6.994	8.334	7378	11	25.746	16.189				
7163	9	13.062	16.216					7305	9	8.746	8.362	7379	38	5.352	17.652				
7164	22	24.915	16.170					7306	39	10.414	8.106	7380	24	6.768	17.258				
7165	8	1.915	17.374					7307	8	12.446	8.975	7381	22	7.340	17.821				
7166	8	8.970	17.350					7308*	43	17.344	8.772	7382	11	6.437	18.934				
7167	8	9.749	17.030					7309	12	18.446	8.354	7383	8	7.690	18.150				
7168	20	12.900	17.148					7310*	58	20.416	8.258	7384	15	16.128	18.201				
7169	15	13.547	17.694					7311	17	21.271	8.650	7385	8	16.554	18.242				
7170	25	15.595	17.224					7312	36	22.146	8.869	7386*	40	18.386	18.108				
7171	10	17.538	17.261					7313	9	22.178	8.134	7387	8	23.290	18.878				
7172*	29	19.150	17.890					7314*	46	24.522	8.354	7388	80	0.158	19.500				
7173	11	19.470	17.222					7315	8	24.780	8.420	7389	16	7.247	19.244				
7174	8	20.959	17.298					7316	10	4.080	9.094	7390	13	8.601	19.740				
7175	8	23.693	17.978					7317*	83	9.706	9.562	7391	13	10.860	19.586				
7176	16	1.342	18.237					7318	10	10.600	9.105	7392	39	0.418	20.236				
7177*	20	3.995	18.900					7319	10	17.645	9.110	7393	8	3.429	20.518				
7178	14	5.626	18.837					7320	16	20.690	9.876	7394	20	4.269	20.340				
7179	10	17.497	18.659					7321	13	20.703	9.299	7395	17	6.140	20.946				
7180	10	18.612	18.869					7322*	93	23.002	9.300	7396	23	6.166	20.431				
7181	8	18.760	18.458					7323	8	2.577	10.751	7397	9	7.596	20.256				
7182	9	1.858	19.086					7324	13	4.008	10.294	7398	17	8.147	20.880				
7183	13	6.216	19.972					7325	8	5.724	10.303	7399	23	18.834	20.940				
7184	24	9.782	19.840					7326	17	6.100	10.836	7400							



7464	8	18.254	2.515	7538	18	9.066	11.333	7612	20	22.664	18.226	7756	13	4.876	9.215
7465	8	18.358	2.025	7539	8	9.565	11.864	7613	17	24.891	18.466	7757*	43	7.554	9.275
7466	9	21.562	2.346	7540	12	11.940	11.904	7614	8	6.590	19.682	7758*	32	7.609	9.402
7467	12	22.865	2.032	7541	8	14.330	11.484	7615	20	21.753	19.268	7759	12	8.046	9.226
7468	8	1.308	3.138	7542*	29	17.910	11.980	7616	22	13.752	19.389	7760	13	9.807	9.753
7469	10	16.272	3.644	7543	8	22.829	11.080	7617	23	21.720	19.868	7761	20	13.656	9.123
7470*	39	17.829	3.149	7544	13	24.337	11.686	7618	11	24.396	19.532	7762	14	13.986	9.644
7471	8	20.225	3.139	7545	8	3.413	12.344	7619	8	3.025	20.680	7763	12	17.548	9.096
7472	25	20.262	3.409	7546	8	3.465	12.713	7620	8	6.508	20.272	7764	21	21.032	9.166
7473	8	21.546	3.214	7547	11	5.116	12.778	7621	12	11.583	20.475	7765	36	22.864	9.727
7474	14	22.471	3.660	7548	8	7.584	12.884	7622	8	13.341	20.076	7766	11	5.153	10.782
7475*	46	11.700	4.221	7549	8	9.820	12.486	7623	14	21.736	20.788	7767	12	6.683	10.974
7476	23	11.893	4.424	7550	31	11.181	12.517	7624*	24	24.072	20.110	7768	24	8.454	10.276
7477	9	12.718	4.839	7551	12	14.600	12.770	7625	17	24.321	20.874	7769	20	9.282	10.604
7478	12	17.114	4.795	7552	8	14.964	12.666	7626	12	24.340	20.846	7770	9	9.394	10.099
7479	13	18.631	4.210	7553	8	19.213	12.913	7627	12	2.244	21.134	7771	24	13.460	10.804
7480	18	19.271	4.125	7554	21	23.286	12.227	7628*	40	2.328	21.138	7772	25	13.905	10.154
7481	26	20.293	4.064	7555*	49	2.030	13.722	7629	29	4.311	21.668	7773	13	14.002	10.192
7482*	54	0.874	5.465	7556	10	7.316	13.679	7630	13	5.667	21.310	7774	20	20.032	10.199
7483	20	2.604	5.067	7557	8	16.541	13.259	7631	8	6.690	21.726	7775	18	0.668	11.412
7484	28	9.500	5.062	7558	9	17.723	13.179	7632	8	7.146	21.261	7776	21	4.652	11.469
7485	8	16.100	5.658	7559	17	17.888	13.600	7633	21	8.486	21.246	7777	10	8.080	11.044
7486	14	17.998	5.690	7560	8	23.884	13.405	7634	15	9.590	21.590	7778	8	8.372	11.354
7487	11	18.796	5.577	7561	12	25.010	13.862	7635	14	13.048	21.301	7779	8	9.555	11.628
7488	13	20.674	5.374	7562	20	3.520	14.954	7636	9	13.246	21.716	7780	16	11.784	11.094
7489	12	4.050	6.448	7563	20	4.638	14.226	7637	10	13.858	21.270	7781	21	0.613	12.713
7490	11	9.186	6.766	7564	8	8.552	14.609	7638	11	17.300	21.568	7782	17	1.663	12.164
7491	11	14.924	6.076	7565	10	10.234	14.312	7639	9	17.468	21.685	7783	9	5.684	12.206
7492	8	16.338	6.624	7566	10	12.103	14.265	7640	8	19.224	21.080	7784	19	6.184	12.335
7493	8	19.015	6.334	7567	14	18.554	14.385	7641	14	6.138	22.822	7785	18	10.044	12.538
7494	12	3.846	7.826	7568	9	23.923	14.565	7642	13	9.343	22.014	7786	24	14.494	12.736
7495	11	7.354	7.673	7569	12	3.248	15.970	7643	8	9.600	22.348	7787	9	14.557	12.945
7496	8	8.830	7.235	7570*	27	4.215	15.664	7644*	35	10.402	22.027	7788	8	16.607	12.954
7497	31	16.114	7.230	7571	20	10.920	15.611	7645	15	12.186	22.482	7789	16	20.154	12.596
7498	10	24.634	7.712	7572	8	13.966	15.797	7646	8	13.451	22.204	7790	8	14.019	13.680
7499	24	24.771	7.166	7573	21	16.330	15.224	7647	9	15.680	22.320	7791	8	14.322	13.654
7500	20	25.626	7.239	7574	8	17.160	15.520	7648	30	20.516	22.236	7792	8	17.887	13.316
7501*	33	1.922	8.150	7575	10	17.274	15.178	7649	12	0.396	23.952	7793*	33	19.064	13.332
7502	8	2.184	8.214	7576*	21	20.930	15.970	7650	13	2.021	23.216	7794	15	23.799	13.798
7503	11	7.344	8.141	7577	32	1.360	16.489	7651	9	14.142	23.080	7795	15	2.350	14.335
7504	8	7.587	8.130	7578*	24	6.318	16.170	7652	22	16.197	23.872	7796	13	5.132	14.012
7505	15	9.552	8.323	7579	8	7.874	16.466	7653	8	18.229	23.956	7797*	38	6.480	14.114
7506	11	15.057	8.703	7580	8	10.123	16.498	7654	8	21.160	23.360	7798	9	8.376	14.533
7507	13	15.558	8.802	7581	23	12.228	16.736	7655	23	21.496	23.034	7799*	43	8.516	14.404
7508*	48	15.748	8.615	7582	10	13.313	16.046	7656	12	23.078	23.978	7800	23	10.300	14.713
7509	22	16.909	8.594	7583	18	18.080	16.518	7657	12	0.594	24.482	7801	8	16.434	14.483
7510	8	18.415	8.022	7584	8	19.472	16.564	7658	8	0.870	24.090	7802	8	16.858	14.600
7511	8	19.776	8.158	7585	11	19.628	16.145	7659	8	1.274	24.313	7803	22	17.685	14.578
7512	11	22.840	8.991	7586	14	19.830	16.614	7660*	45	1.924	24.456	7804	9	18.306	14.334
7513	80	0.407	9.116	7587*	43	21.368	16.689	7661	22	2.944	24.036	7805*	42	18.345	14.433
7514	8	3.248	9.797	7588	16	23.764	16.025	7662	14	11.984	24.878	7806	20	19.197	14.796
7515	8	5.720	9.867	7589	8	24.386	16.710	7663	8	20.294	24.818	7807	15	21.842	14.904
7516	9	5.856	9.686	7590	8	3.210	17.747	7664	20	21.623	24.955	7808	18	22.468	14.214
7517	11	9.892	9.952	7591	10	10.972	17.225	7665	19	21.890	24.746	7809	10	22.953	14.734
7518	12	12.537	9.340	7592	8	13.976	17.512	7666*	39	22.308	24.311	7810	10	1.267	15.045
7519	25	13.069	9.867	7593*	38	15.716	17.633	7667	12	24.785	24.625	7811	14	10.065	15.862
7520	17	19.496	9.514	7594	12	15.784	17.430	7668	8	0.658	25.430	7812	8	12.523	15.752
7521	9	22.679	9.596	7595	8	16.874	17.097	7669	22	2.156	25.903	7813	20	13.218	15.312
7522	14	3.948	10.926	7596	11	17.454	17.749	7670	8	4.354	25.684	7814	10	14.180	15.416
7523	14	8.197	10.616	7597	21	18.538	17.278	7671	10	5.871	25.080	7815	11	14.284	15.630
7524	8	9.015	10.787	7598	15	18.720	17.100	7672	22	6.184	25.870	7816	8	17.690	15.679
7525	9	16.431	10.460	7599	11	21.006	17.651	7673	15	6.632	25.053	7817	25	20.543	15.215
7526	12	17.114	10.678	7600	20	24.786	17.346	7674	15	7.747	25.820	7818	23	21.922	15.376
7527	14	17.437	10.634	7601	9	0.825	18.688	7675	11	8.726	25.912	7819	18	23.146	15.355
7528	18	19.498	10.354	7602	11	1.724	18.078	7676	12	13.016	25.057	7820	19	1.119	16.507
7529	17	20.316	10.896	7603	24	4.128	18.756	7677	8	16.793	25.490	7821	18	3.606	16.450
7530	12	22.064	10.566	7604	21	4.940	18.595	7678	54	17.222	25.660	7822	21	5.662	16.114
7531	12	23.350	10.930	7605	8	6.388	18.224	7679	20	18.268	25.406	7823	14	11.883	16.692
7532	19	2.216	11.034	7606	8	6.676	18.051	7680*	40	20.347	25.300	7824	8	14.346	16.652
7533	8	2.540	11.285	7607	17	7.052	18.304	7681	18	20.740	25.712	7825	17	15.956	16.708
7534	9	3.814	11.666	7608	20	13.364	18.137	7682	13	22.036	25.950	7826	18	17.718	16.700
7535	19	3.878	11.824	7609	16	13.773	18.578	7683	13	22.130	25.740	7827	12	1.750	17.186
7536	8	5.362	11.104	7610*	32	16.926	18.133	7684*	55	22.726	25.292	7828	21	2.146	17.820
7537	9	5.466	11.328	7611	22	21.100	18.754					7829	10	8.973	17.498

R.A. 4<sup>h</sup> 28<sup>m</sup>

Plate 392; 1914 Dec. 21.

Provisional Constants.

A	B	C
-01759	+00454	-1526

D	E	F
-00442	-01788	+4445

Mag. = 15.9 - 1.09√d

No.	d	x	y
7700	17	0.148	0.654
7701	31	4.661	0.826
7702	38	9.840	0.984
7703	13	21.646	0.785
7704	13	13.080	1.522
7705	29	13.734	1.334
7706*	64	13.855	1.115
7707	10	1.357	2.154
7708*	42	7.234	2.685
7709	11	8.104	2.80



7830	9	10.566	17.672	<div>R.A. 4<sup>h</sup> 36<sup>m</sup></div> <div>Plate 412; 1915 Jan. 6.</div> <div>Provisional Constants.</div> <div>A            B            C</div> <div>−01745 +00481 −1157</div> <div>D            E            F</div> <div>−00489 −01777 −0954</div> <div>Mag. = 15.4 − 1.09√d</div>	7956	12	12.245	6.256	8030	11	5.658	15.088	8104*	33	12.704	22.972
7831	16	13.313	17.482		7957	16	15.770	6.010	8031	21	7.778	15.584	8105	19	13.213	22.680
7832	17	14.120	17.445		7958	14	19.456	6.034	8032	12	8.682	15.610	8106*	20	15.137	22.180
7833	12	22.045	17.346		7959	12	23.054	6.905	8033	13	9.092	15.768	8107	10	16.548	22.757
7834*	33	23.735	17.690		7960	19	23.384	6.467	8034	14	12.023	15.464	8108	8	18.646	22.601
7835	21	0.034	18.719		7961	13	24.538	6.919	8035	12	15.614	15.590	8109	22	22.186	22.134
7836	21	2.258	18.940		7962	10	0.060	7.325	8036	9	16.346	15.526	8110	21	25.087	22.682
7837	24	4.657	18.431		7963*	43	4.012	7.528	8037	8	18.850	15.781	8111	11	1.230	23.564
7838	8	6.700	18.859		7964	10	13.641	7.923	8038	12	21.629	15.948	8112	17	3.866	23.682
7839	16	8.978	18.874		7965	14	15.126	7.386	8039	11	1.990	16.094	8113	13	4.464	23.630
7840	8	10.948	18.166	<div>No.    d            x            y</div> <div>7900    18    19.804    0.686</div> <div>7901    20    21.388    0.663</div> <div>7902    12    6.658    1.329</div> <div>7903    8    8.688    1.726</div> <div>7904    8    9.346    1.590</div> <div>7905    8    11.670    1.134</div> <div>7906    11    13.026    1.397</div> <div>7907    16    16.384    1.346</div> <div>7908    9    16.900    1.350</div> <div>7909*    34    19.042    1.994</div> <div>7910    21    23.766    1.378</div> <div>7911    10    5.228    2.648</div> <div>7912    27    5.834    2.313</div> <div>7913    9    7.538    2.153</div> <div>7914*    43    9.485    2.948</div> <div>7915    10    11.985    2.535</div> <div>7916    10    12.496    2.786</div> <div>7917    11    16.469    2.165</div> <div>7918    9    17.158    2.505</div> <div>7919*    26    20.450    2.382</div> <div>7920*    20    20.742    2.082</div> <div>7921    12    21.680    2.718</div> <div>7922    11    23.975    2.726</div> <div>7923    11    6.231    3.717</div> <div>7924    9    7.687    3.272</div> <div>7925    8    7.804    3.064</div> <div>7926    14    8.114    3.711</div> <div>7927    21    8.192    3.164</div> <div>7928*    31    8.865    3.992</div> <div>7929*    30    12.878    3.866</div> <div>7930*    28    22.888    3.734</div> <div>7931    8    24.064    3.598</div> <div>7932*    65    24.136    3.754</div> <div>7933    11    0.332    4.902</div> <div>7934    8    2.422    4.805</div> <div>7935    8    4.904    4.186</div> <div>7936    9    6.727    4.292</div> <div>7937    10    6.886    4.063</div> <div>7938    20    10.358    4.956</div> <div>7939    9    12.249    4.400</div> <div>7940    8    16.154    4.714</div> <div>7941    12    16.168    4.544</div> <div>7942    8    19.317    4.661</div> <div>7943    20    19.468    4.565</div> <div>7944    11    19.705    4.256</div> <div>7945    10    20.344    4.847</div> <div>7946    8    22.908    4.356</div> <div>7947    10    24.816    4.465</div> <div>7948    15    10.324    5.274</div> <div>7949    8    11.553    5.586</div> <div>7950    16    15.651    5.504</div> <div>7951    19    0.138    6.090</div> <div>7952    26    6.592    6.670</div> <div>7953    8    9.260    6.426</div> <div>7954    22    9.896    6.187</div> <div>7955    9    10.632    6.519</div>	8040	8	11.642	16.515	8114	11	11.128	23.226				
7841	19	10.988	18.974		7967	8	3.379	8.202	8041	16	13.600	16.906	8115	10	12.066	23.894
7842*	43	12.612	18.816		7968	22	3.982	8.500	8042	20	16.512	16.883	8116	14	12.868	23.906
7843	17	17.154	18.423		7969	19	4.786	8.506	8043	13	19.822	16.480	8117	26	13.790	23.890
7844	18	17.156	18.853		7970	19	8.618	8.867	8044	22	21.464	16.810	8118	12	14.712	23.270
7845	20	18.594	18.881		7971	20	9.792	8.454	8045	21	24.194	16.327	8119	14	15.668	23.630
7846	9	22.586	18.636		7972	12	10.146	8.222	8046	10	25.006	16.606	8120	11	17.675	23.459
7847	21	24.175	18.606		7973	11	11.722	8.486	8047*	29	1.266	17.258	8121	11	23.702	23.918
7848	8	3.536	19.539		7974	11	15.336	8.964	8048	10	12.360	17.232	8122	8	4.144	24.846
7849*	24	7.248	19.676		7975	9	22.092	8.438	8049	8	16.714	17.464	8123*	52	6.106	24.638
7850	23	7.823	19.856	7976	22	0.310	9.308	8050	11	19.176	17.342	8124	8	8.114	24.599	
7851	33	8.753	19.090	7977*	27	7.016	9.218	8051	15	19.444	17.300	8125	8	8.256	24.750	
7852	8	9.016	19.083	7978	20	9.530	9.433	8052	9	0.133	18.214	8126	16	9.964	24.934	
7853	13	9.514	19.995	7979	8	10.212	9.732	8053	17	1.718	18.171	8127	26	12.175	24.406	
7854	12	14.037	19.950	7980*	32	10.292	9.850	8054	10	4.910	18.338	8128	12	14.338	24.770	
7855	23	14.684	19.178	7981*	27	11.485	9.972	8055	16	9.548	18.398	8129*	36	19.574	24.571	
7856	15	15.366	19.280	7982	19	12.121	9.912	8056	20	9.756	18.824	8130	21	24.300	24.510	
7857	21	18.642	19.768	7983	8	12.596	9.641	8057	11	14.244	18.312	8131	21	0.535	25.508	
7858*	33	1.454	20.591	7984	12	12.634	9.423	8058	9	16.640	18.360	8132	30	2.375	25.513	
7859	14	5.574	20.466	7985	17	16.032	9.028	8059	10	16.866	18.821	8133	18	18.592	25.914	
7860	10	7.994	20.646	7986	23	24.149	9.423	8060	16	21.040	18.238	8134	26	19.178	25.935	
7861	18	16.070	20.138	7987	20	24.986	9.788	8061	8	21.666	18.222					
7862	23	19.030	20.438	7988	11	25.100	9.218	8062	10	2.455	19.706					
7863*	25	19.743	20.904	7989	9	3.930	10.213	8063	8	3.068	19.858					
7864*	62	23.549	20.770	7990	9	4.578	10.820	8064	16	4.055	19.282					
7865	23	24.118	20.654	7991	12	8.125	10.584	8065*	44	5.256	19.979					
7866	10	24.892	20.148	7992	26	15.544	10.070	8066	10	6.978	19.854					
7867	20	25.918	20.644	7993	10	3.484	11.600	8067	11	10.035	19.664					
7868	21	1.710	21.350	7994*	41	6.147	11.780	8068	8	13.407	19.570					
7869	11	1.730	21.322	7995	12	6.505	11.278	8069	17	13.452	19.851					
7870	20	13.356	21.088	7996	11	7.363	11.255	8070	8	13.477	19.160					
7871*	41	16.166	21.173	7997	20	15.670	11.830	8071	12	13.702	19.210					
7872	14	16.684	21.012	7998*	30	15.880	11.195	8072	10	17.828	19.244					
7873	8	22.593	21.853	7999	18	20.092	11.617	8073*	33	22.366	19.714					
7874	18	23.568	21.482	8000	9	20.566	11.158	8074	33	25.603	19.291					
7875	39	24.966	21.001	8001	9	22.398	11.164	8075*	49	1.107	20.339					
7876	16	4.552	22.755	8002	9	24.534	11.616	8076	20	1.683	20.217					
7877*	41	11.772	22.154	8003	12	25.386	11.430	8077	8	2.096	20.966					
7878	23	12.333	22.328	8004	23	6.944	12.427	8078	18	3.490	20.190					
7879	14	12.580	22.079	8005	10	7.190	12.549	8079	10	8.563	20.726					
7880	12	16.546	22.054	8006	13	8.316	12.891	8080	16	18.532	20.471					
7881	17	24.738	22.472	8007	9	14.861	12.762	8081	9	19.511	20.859					
7882	21	8.442	23.223	8008	8	1.155	13.280	8082	24	20.054	20.193					
7883	25	21.560	23.574	8009	13	1.291	13.366	8083	8	0.165	21.434					
7884	15	23.626	23.994	8010	11	9.243	13.473	8084	13	1.143	21.055					
7885	20	0.492	24.464	8011	15	14.463	13.080									



8168	18	18.404	1.424	8242	9	3.566	8.123	8316	11	2.402	14.416	8390	8	15.980	19.594
8169	28	24.797	1.140	8243	8	5.042	8.266	8317	29	2.680	14.525	8391	8	20.841	19.765
8170	33	1.126	2.134	8244	8	10.665	8.657	8318	19	5.774	14.596	8392	9	23.515	19.759
8171	22	5.388	2.886	8245	21	12.954	8.280	8319*	37	8.288	14.809	8393	15	25.113	19.110
8172	15	8.976	2.814	8246	14	15.764	8.736	8320*	26	8.553	14.865	8394*	41	3.205	20.020
8173	15	9.466	2.876	8247	22	17.174	8.666	8321*	28	9.508	14.905	8395	13	4.040	20.084
8174*	48	10.394	2.928	8248*	42	21.967	8.016	8322	10	9.825	14.890	8396	38	5.770	20.718
8175	24	11.422	2.615	8249	29	22.150	8.062	8323*	110	10.304	14.614	8397	25	7.559	20.740
8176	13	12.283	2.164	8250	11	22.624	8.324	8324	10	17.580	14.828	8398	23	7.890	20.912
8177	8	18.828	2.204	8251	14	23.204	8.998	8325	21	17.868	14.666	8399	30	11.721	20.056
8178	10	19.583	2.482	8252	13	2.562	9.954	8326	8	18.422	14.058	8400	14	12.432	20.022
8179	8	24.104	2.380	8253	8	2.802	9.593	8327	12	19.448	14.120	8401	11	13.392	20.568
8180	18	1.348	3.477	8254	23	5.375	9.781	8328	56	25.730	14.686	8402	8	16.577	20.886
8181	21	6.337	3.642	8255*	56	5.846	9.722	8329	15	3.742	15.776	8403	23	17.478	20.183
8182	13	7.360	3.469	8256	23	8.097	9.413	8330	8	4.702	15.480	8404	27	21.232	20.588
8183	8	8.112	3.056	8257	13	13.554	9.174	8331	14	7.578	15.515	8405	20	23.165	20.766
8184*	45	10.833	3.279	8258*	25	14.353	9.526	8332	16	11.088	15.406	8406	10	5.296	21.438
8185	18	12.458	3.376	8259	12	14.959	9.926	8333	18	11.418	15.747	8407	15	6.624	21.014
8186	9	15.852	3.268	8260	10	15.580	9.454	8334	11	13.766	15.622	8408	22	8.577	21.281
8187	13	17.036	3.466	8261	9	17.930	9.726	8335	25	20.865	15.714	8409	8	10.118	21.270
8188	24	17.595	3.695	8262	24	18.280	9.262	8336	8	21.566	15.818	8410	11	11.786	21.396
8189	16	17.886	3.170	8263	9	21.566	9.754	8337	34	22.801	15.806	8411	20	14.702	21.402
8190	8	18.938	3.849	8264	8	21.936	9.235	8338	9	1.978	16.042	8412	10	15.450	21.416
8191	25	21.308	3.158	8265	24	22.476	9.214	8339	13	3.940	16.685	8413	18	19.371	21.168
8192	19	23.052	3.619	8266	13	22.568	9.724	8340	14	6.812	16.606	8414	8	19.842	21.470
8193	43	0.274	4.504	8267*	34	23.169	9.682	8341	9	9.517	16.713	8415	25	21.850	21.282
8194*	76	1.514	4.506	8268*	42	23.920	9.988	8342*	25	10.865	16.254	8416	28	3.048	22.300
8195	20	7.584	4.222	8269	10	1.075	10.184	8343*	23	13.570	16.010	8417	33	3.986	22.072
8196	10	9.943	4.216	8270	29	1.613	10.172	8344*	43	14.270	16.803	8418	13	9.276	22.354
8197	17	15.155	4.244	8271	27	2.456	10.527	8345	9	15.076	16.074	8419	11	11.846	22.164
8198	18	16.600	4.644	8272	23	5.646	10.714	8346	8	16.138	16.701	8420	14	19.828	22.643
8199*	43	16.912	4.504	8273*	37	7.546	10.345	8347	8	16.200	16.880	8421	29	2.740	23.418
8200	9	18.374	4.175	8274	17	10.276	10.993	8348	8	16.266	16.922	8422	15	3.846	23.448
8201	9	21.855	4.621	8275	14	13.766	10.565	8349	21	17.274	16.584	8423	33	4.392	23.208
8202	31	25.246	4.594	8276	22	14.058	10.604	8350	13	18.826	16.936	8424	20	8.547	23.616
8203	14	2.215	5.204	8277	12	15.530	10.838	8351	14	24.154	16.986	8425	21	11.482	23.926
8204	24	7.805	5.066	8278	14	15.875	10.345	8352	22	1.754	17.075	8426	13	14.894	23.223
8205*	53	8.524	5.535	8279	28	18.742	10.564	8353	15	2.570	17.340	8427	36	20.054	23.792
8206	25	8.590	5.265	8280	10	23.056	10.344	8354	8	5.699	17.220	8428	8	20.727	23.523
8207*	63	13.118	5.461	8281	21	1.298	11.995	8355	10	9.048	17.220	8429	43	23.756	23.367
8208	21	13.414	5.128	8282	10	7.649	11.488	8356	22	11.083	17.380	8430	32	25.668	23.946
8209	16	13.444	5.229	8283	21	9.316	11.146	8357	8	13.411	17.776	8431	8	0.744	24.732
8210	9	15.694	5.836	8284	20	9.803	11.843	8358	18	14.090	17.490	8432	11	1.374	24.674
8211*	100	17.494	5.994	8285	17	11.084	11.430	8359	8	17.496	17.873	8433	23	5.624	24.216
8212	35	21.944	5.965	8286	16	13.192	11.361	8360	9	19.112	17.710	8434	21	6.037	24.086
8213	8	22.858	5.444	8287	13	13.680	11.685	8361	8	19.116	17.680	8435	24	8.947	24.967
8214	8	24.008	5.058	8288	14	14.238	11.284	8362	9	19.739	17.379	8436	8	9.944	24.290
8215	27	4.466	6.310	8289	9	14.258	11.180	8363	8	19.847	17.734	8437	21	10.760	24.125
8216	8	5.882	6.446	8290	8	14.745	11.564	8364	11	20.874	17.195	8438	18	13.286	24.874
8217	8	8.284	6.804	8291	20	18.284	11.290	8365	25	24.346	17.027	8439	9	13.976	24.358
8218	34	9.306	6.070	8292	23	18.357	11.066	8366	14	25.374	17.346	8440	15	14.145	24.005
8219	13	12.316	6.624	8293	33	19.509	11.006	8367	28	6.650	18.266	8441	35	22.344	24.264
8220	25	13.116	6.283	8294	9	25.183	11.575	8368	18	7.251	18.225	8442	24	23.917	24.232
8221	20	14.075	6.557	8295	10	0.496	12.542	8369	39	9.334	18.325	8443	18	25.600	24.382
8222	10	18.400	6.959	8296	10	2.030	12.362	8370*	50	9.412	18.266	8444	33	1.980	25.256
8223	9	20.254	6.583	8297	16	2.878	12.163	8371	11	10.830	18.833	8445	24	5.184	25.624
8224	18	20.706	6.172	8298	14	4.828	12.696	8372	18	15.078	18.932	8446*	66	7.280	25.126
8225	8	22.430	6.101	8299	23	10.994	12.093	8373	17	17.860	18.468	8447	31	7.584	25.842
8226	15	0.486	7.670	8300	16	11.080	12.878	8374	30	19.512	18.918	8448	18	11.771	25.496
8227	20	0.810	7.230	8301	20	13.564	12.199	8375	21	21.114	18.190	8449	13	17.583	25.607
8228	20	1.968	7.664	8302	13	15.080	12.625	8376	25	21.136	18.212	8450	19	18.213	25.606
8229	8	4.336	7.210	8303	8	15.270	12.353	8377	20	21.886	18.852	8451	15	19.976	25.257
8230	9	6.505	7.163	8304*	40	22.104	12.686	8378	9	22.336	18.814	8452	38	20.495	25.252
8231	14	7.440	7.428	8305	8	22.450	12.352	8379	28	25.342	18.514				
8232	10	10.244	7.689	8306	9	23.926	12.145	8380	16	4.178	19.063				
8233	8	11.840	7.043	8307	17	25.693	12.696	8381*	53	4.730	19.197				
8234	15	12.113	7.234	8308	11	0.149	13.532	8382	10	5.284	19.880				
8235	21	12.255	7.762	8309	20	3.212	13.905	8383	13	8.110	19.152				
8236*	98	12.852	7.393	8310	21	12.057	13.178	8384	13	9.614	19.846				
8237	12	17.600	7.916	8311	25	13.560	13.995	8385	18	9.658	19.732				
8238*	44	18.705	7.060	8312	20	15.033	13.082	8386	8	12.773	19.140				
8239*	34	21.932	7.121	8313	14	18.796	13.553	8387	18	14.226	19.999				
8240	27	23.664	7.421	8314	22	20.570	13.374	8388	14	14.820	19.159				
8241	9	24.620	7.486	8315*	52	24.510	13.536	8389	34	15.164	19.038				

R.A. 4<sup>h</sup> 52<sup>m</sup>

Plate 393; 1914 Dec. 21.

Provisional Constants.

A	B	C
-01749	+00748	-0548

D	E	F
-00703	-01780	+4460

Mag. = 16.2 - 1.09√d

No.	d	x	y
8500	12	3.880	0.550
8501	17	4.171	0.413
8502	8	4.884	0.752
8503	15	5.116	0.848
8504	18	7.085	0.403
8505	58	20.651	0.152
8506*	63	22.682	0.666
8507	30	24.130	0.046
8508	8	2.124	1.192
8509	25	2.184	1.211
8510*	42	9.791	1.885
8511*	30	15.294	1.520
8512	14	19.346	1.734
8513*	43	23.270	1.912
8514	18	10.772	2.478



8556*	82	19-976	7-549	8630	24	23-936	14-787	8704	8	6-234	24-302	8781	8	18-623	3-286	8855*	35	1-423	13-115
8557	29	20-074	7-406	8631	10	25-962	14-126	8705*	45	10-450	24-043	8782	29	19-608	3-264	8856	8	21-477	13-644
8558	11	21-286	7-556	8632	34	0-304	15-898	8706	13	11-958	24-628	8783	29	25-108	3-266	8857	12	21-918	13-428
8559*	29	22-658	7-521	8633	25	4-066	15-792	8707	9	12-804	24-492	8784	20	0-453	4-790	8858	19	1-276	14-686
8560	8	24-930	7-918	8634	8	4-280	15-045	8708	30	13-263	24-071	8785*	60	1-028	4-054	8859	10	3-300	14-003
8561*	80	9-446	8-184	8635	9	4-541	15-426	8709	8	18-844	24-961	8786*	52	6-628	4-803	8860	8	8-310	14-345
8562	10	12-381	8-533	8636	8	4-558	15-928	8710*	68	19-390	24-405	8787	9	9-573	4-668	8861	8	9-210	14-100
8563	21	19-517	8-940	8637*	46	6-159	15-022	8711	10	20-180	24-856	8788	15	10-595	4-460	8862	8	11-790	14-150
8564	11	20-118	8-886	8638	8	6-540	15-892	8712	10	21-053	24-122	8789	27	12-125	4-080	8863	8	17-628	14-866
8565	12	21-288	8-440	8639	23	6-908	15-635	8713	8	23-278	24-578	8790	11	13-058	4-591	8864	10	11-255	15-558
8566*	30	0-621	9-771	8640	14	7-213	15-192	8714	19	6-226	25-926	8791	8	13-857	4-541	8865	8	13-605	15-434
8567	18	0-650	9-086	8641	8	7-578	15-484	8715	12	6-718	25-122	8792	10	15-722	4-763	8866	10	13-900	15-180
8568	8	4-684	9-518	8642*	43	7-581	16-406	8716	11	7-017	25-212	8793	35	1-096	5-216	8867	18	14-872	15-575
8569	10	5-376	9-052	8643*	28	11-663	16-646	8717	11	7-791	25-836	8794	8	10-584	5-158	8868	27	16-844	15-710
8570	24	7-602	9-866	8644	22	14-224	16-494	8718	16	11-600	25-632	8795	10	12-626	5-639	8869	9	17-062	15-726
8571	10	9-010	9-110	8645	27	14-632	16-036	8719	9	17-336	25-565	8796	15	14-200	5-900	8870	8	18-350	15-633
8572	19	10-384	9-376	8646	10	16-945	16-200	8720	8	20-247	25-299	8797	8	15-478	5-815	8871	10	21-484	15-898
8573	13	11-560	9-350	8647	25	19-681	16-402	8721	8	25-140	25-828	8798	11	20-464	5-250	8872	8	3-240	16-341
8574	10	11-882	9-844	8648	11	1-668	17-070					8799	8	23-665	5-234	8873	15	5-216	16-845
8575	26	13-492	9-960	8649	17	1-862	17-104					8800	25	0-358	6-764	8874	10	5-718	16-106
8576	17	15-452	9-970	8650	16	2-898	17-416					8801	9	0-853	6-054	8875	21	8-510	16-668
8577	12	15-714	9-824	8651	11	7-552	17-746					8802	9	5-166	6-252	8876	10	10-592	16-722
8578	8	19-689	9-766	8652	21	15-418	17-480					8803	12	5-194	6-262	8877	11	12-041	17-724
8579*	40	1-372	10-070	8653	20	19-268	17-924					8804	8	10-028	6-393	8878	22	12-406	16-382
8580	19	4-410	10-922	8654	8	20-564	17-684					8805	15	14-176	6-336	8879	10	14-022	16-662
8581	10	4-842	10-657	8655	20	20-840	17-538					8806	31	20-034	6-495	8880	20	14-122	16-116
8582	10	12-580	10-469	8656	33	25-236	17-608					8807	15	21-823	6-395	8881	9	14-827	16-536
8583	10	13-276	10-399	8657	25	2-870	18-582					8808	10	4-580	7-264	8882	13	15-302	16-490
8584	24	13-580	10-330	8658	15	9-964	18-206					8809	13	14-170	7-176	8883	14	19-766	16-570
8585	14	19-145	10-018	8659	11	15-047	18-500					8810	9	4-144	8-004	8884	29	20-093	16-722
8586	16	2-651	11-646	8660*	32	16-350	18-498					8811	10	8-490	8-870	8885	9	22-348	16-890
8587	12	5-698	11-589	8661	11	17-612	18-684					8812	22	9-598	8-780	8886	27	2-602	17-494
8588	24	6-642	11-292	8662	24	22-504	18-370					8813	29	11-263	8-702	8887	12	7-530	17-718
8589	17	8-890	11-750	8663	18	24-690	18-976					8814	8	12-882	8-496	8888	17	11-116	17-605
8590*	80	8-960	11-986	8664	8	2-763	19-225					8815*	26	15-401	8-176	8889	9	13-297	17-876
8591*	27	18-074	11-420	8665	13	4-848	19-999					8816	28	23-487	8-165	8890	15	16-626	17-748
8592	21	18-126	11-304	8666	9	7-142	19-928					8817	13	6-268	9-051	8891	24	18-284	17-753
8593	21	20-693	11-046	8667*	37	11-520	19-111					8818	17	12-904	9-366	8892	11	18-588	17-380
8594	9	22-089	11-934	8668	25	17-648	19-368					8819	27	15-352	9-520	8893	8	19-715	17-468
8595	11	22-738	11-536	8669	20	18-257	19-074					8820	8	23-024	9-976	8894*	63	20-320	17-890
8596*	33	23-075	11-690	8670	14	20-084	19-584					8821	8	3-281	10-406	8895*	60	21-899	17-762
8597	26	23-277	11-104	8671	11	0-716	20-854					8822	9	5-157	10-984	8896*	50	22-348	17-131
8598	13	3-175	12-764	8672	9	4-469	20-570					8823	8	5-859	10-166	8897	19	2-069	18-869
8599	18	5-983	12-740	8673	9	6-104	20-966					8824	9	5-988	10-682	8898	8	5-456	18-728
8600	32	7-236	12-684	8674	22	10-134	20-260					8825	9	8-106	10-925	8899	8	6-064	18-669
8601	16	7-574	12-516	8675	14	10-633	20-754					8826	16	14-472	10-171	8900	9	7-710	18-733
8602	15	10-274	12-614	8676	10	12-792	20-918					8827	8	16-202	10-389	8901	9	8-632	18-225
8603	21	14-732	12-794	8677	27	14-294	20-861					8828	29	18-074	10-432	8902	10	8-861	18-282
8604	10	15-957	12-935	8678	20	18-981	20-434					8829	9	21-578	10-864	8903	8	10-696	18-399
8605	22	16-588	12-258	8679	8	1-938	21-032					8830	10	22-605	10-116	8904	29	12-114	18-334
8606*	82	17-609	12-312	8680*	34	5-956	21-840					8831	13	0-048	11-440	8905	8	12-116	18-069
8607	12	19-260	12-426	8681	19	7-844	21-583					8832	31	0-383	11-594	8906	14	13-102	18-791
8608	13	19-300	12-660	8682	10	10-791	21-249					8833	27	0-579	11-010	8907	8	13-583	18-954
8609	11	21-779	12-440	8683	10	22-046	21-152					8834	14	9-897	11-339	8908	16	17-932	18-134
8610	23	24-188	12-579	8684	13	22-105	21-775					8835	15	11-056	11-414	8909	8	18-788	18-450
8611	9	25-035	12-782	8685*	64	24-936	21-704					8836	10	11-168	11-393	8910	9	19-838	18-680
8612*	58	1-989	13-614	8686	25	9-470	22-240					8837	17	12-886	11-232	8911	8	20-087	18-680
8613	8	7-810	13-328	8687	20	10-120	22-006					8838	19	21-152	11-298	8912*	56	24-348	18-225
8614	10	8-004	13-859	8688	23	10-218	22-472					8839	8	22-338	11-574	8913	8	4-624	19-217
8615	11	12-541	13-408	8689	10	10-708	22-199					8840*	40	22-777	11-944	8914	8	13-534	19-572
8616	17	17-846	13-356	8690	11	16-638	22-956					8841	21	23-949	11-734	8915	9	16-842	19-228
8617	13	20-116	13-303	8691	9	25-354	22-558					8842	22	1-508	12-476	8916*	35	17-374	19-610
8618	15	24-028	13-582	8692	30	1-330	23-444					8843	8	2-350	12-666	8917	11	19-762	19-088
8619*	44	24-102	13-219	8693	8	11-534	23-666					8844	8	3-052	12-211	8918	8	5-703	20-632
8620*	55	3-220	14-753	8694*	63	12-260	23-674					8845	18	3-933	12-918	8919	9	7-063	20-100
8621	21	4-348	14-018	8695	9	15-276	23-914					8846	11	6-534	12-946	8920	10	8-604	20-505
8622	10	12-096	14-422	8696	12	18-528	23-558					8847	9	7-530	12-380	8921	10	11-661	20-582
8623	24	12-100	14-876	8697	23	20-382	23-170					8848	10	14-112	12-591	8922	12	16-032	20-806
8624	19	14-529	14-462	8698	11	1-500	24-310					8849*	27	18-224	12-234	8923	15	17-244	20-283
8625	10	15-065	14-000	8699	17	3-188	24-447												



8929	10	12.422	21.700	9012	16	9.680	1.907	9086	20	21.910	9.034	9160	26	18.574	16.760	9234	8	20.492	24.460
8930	8	12.570	21.850	9013*	33	11.118	1.086	9087	10	23.386	9.401	9161	17	18.744	16.460	9235	9	1.258	25.156
8931	14	12.764	21.380	9014*	27	20.538	1.013	9088	13	24.301	9.906	9162	21	18.979	16.718	9236*	50	3.150	25.045
8932	19	18.768	21.694	9015	15	21.607	1.887	9089	9	0.098	10.130	9163	11	19.664	16.406	9237	21	3.544	25.684
8933	9	20.198	21.665	9016	10	22.090	1.252	9090	8	1.431	10.822	9164	10	21.940	16.418	9238	11	6.958	25.470
8934	11	2.768	22.444	9017	9	25.400	1.330	9091	12	4.005	10.144	9165	16	22.592	16.144	9239	8	14.095	25.413
8935	20	4.036	22.010	9018	9	1.556	2.214	9092	14	6.487	10.855	9166	20	24.314	16.369	9240*	39	14.940	25.517
8936	10	12.856	22.414	9019*	37	2.884	2.771	9093	8	7.278	10.119	9167	12	6.992	17.144	9241	8	16.176	25.642
8937	13	12.988	22.971	9020	11	4.505	2.353	9094	9	9.321	10.077	9168	13	10.888	17.486	9242	8	24.264	25.388
8938*	35	13.772	22.357	9021	11	5.162	2.749	9095	19	10.337	10.818	9169	13	11.452	17.212				
8939	11	14.346	22.086	9022*	44	5.696	2.216	9096	10	11.906	10.820	9170	8	11.894	17.710				
8940	8	19.200	22.072	9023	10	7.007	2.396	9097	17	15.572	10.474	9171*	37	11.896	17.285				
8941	11	6.589	23.638	9024*	44	7.226	2.332	9098	18	16.222	10.774	9172	16	12.680	17.186				
8942	10	16.074	23.975	9025	9	10.716	2.336	9099*	27	17.184	10.112	9173	8	14.102	17.214				
8943	25	18.402	23.114	9026	8	11.062	2.934	9100*	45	17.265	10.204	9174	20	14.290	17.789				
8944	15	21.060	23.650	9027	11	13.174	2.356	9101	9	20.392	10.340	9175	9	15.364	17.058				
8945	9	22.846	23.249	9028	12	13.254	2.988	9102	8	21.830	10.206	9176	11	19.124	17.485				
8946	26	25.555	23.669	9029	8	14.620	2.816	9103	8	22.416	10.891	9177	21	21.183	17.006				
8947	8	0.711	24.487	9030	13	15.400	2.494	9104	8	25.744	10.325	9178	11	21.878	17.866				
8948	18	3.908	24.405	9031	15	15.783	2.881	9105	30	0.280	11.956	9179	8	24.056	17.217				
8949	16	5.664	24.004	9032	8	17.902	2.646	9106	18	1.454	11.736	9180	8	24.312	17.971				
8950	30	9.550	24.080	9033	8	17.972	2.736	9107	8	6.379	11.664	9181	10	25.360	17.550				
8951	8	12.100	24.166	9034	8	20.479	2.438	9108	9	7.724	11.290	9182*	45	1.886	18.226				
8952	15	12.376	24.451	9035	10	21.371	2.652	9109	10	10.455	11.819	9183	9	8.732	18.704				
8953*	63	13.328	24.943	9036	8	22.224	2.285	9110	31	11.660	11.050	9184	14	9.546	18.820				
8954	18	22.004	24.212	9037	19	22.592	2.142	9111	19	18.036	11.818	9185	18	11.922	18.705				
8955	20	23.775	24.789	9038	23	2.565	3.262	9112	20	21.316	11.534	9186	10	13.173	18.228				
8956*	27	4.687	25.187	9039*	31	5.661	3.659	9113	11	22.956	11.988	9187	10	18.102	18.954				
8957	24	7.288	25.046	9040	8	6.448	3.474	9114	10	5.356	12.482	9188	18	18.114	18.945				
8958	12	8.285	25.135	9041	32	13.550	3.978	9115	15	6.912	12.428	9189	8	23.205	18.992				
8959*	42	13.500	25.592	9042*	39	17.267	3.863	9116	8	10.019	12.744	9190	18	23.664	18.634				
8960	14	13.978	25.366	9043	12	19.965	3.788	9117	8	10.868	12.679	9191	14	4.929	19.385				
8961	12	16.494	25.048	9044	16	23.529	3.935	9118	13	11.240	12.517	9192*	50	12.947	19.532				
8962	8	21.822	25.652	9045	11	24.334	3.994	9119	8	11.260	12.264	9193*	50	13.100	19.555				
8963	16	22.348	25.866	9046	8	25.673	3.586	9120	13	11.514	12.201	9194	10	16.036	19.172				
8964	50	25.566	25.050	9047	19	7.110	4.066	9121	8	14.680	12.290	9195	13	19.719	19.583				
8965	21	25.952	25.691	9048	14	8.873	4.409	9122	20	15.858	12.360	9196	36	25.917	19.400				
				9049*	200	13.986	4.800	9123	15	18.695	12.754	9197	9	2.272	20.660				
				9050	24	17.056	4.170	9124	10	19.815	12.794	9198	11	4.326	20.402				
				9051	28	23.458	4.099	9125	10	20.764	12.582	9199	16	8.952	20.790				
				9052	10	1.130	5.243	9126	10	22.598	12.146	9200	9	12.504	20.014				
				9053	13	5.867	5.496	9127	8	5.329	13.625	9201	8	17.346	20.568				
				9054	18	10.853	5.250	9128	9	5.863	13.538	9202	8	20.230	20.220				
				9055	13	11.128	5.662	9129	8	6.053	13.344	9203	24	22.208	20.616				
				9056	8	11.938	5.316	9130*	40	15.374	13.092	9204	8	22.300	20.636				
				9057	11	15.756	5.536	9131	19	16.494	13.074	9205	25	8.873	21.156				
				9058	20	13.236	6.832	9132	8	20.159	13.350	9206	26	10.188	21.902				
				9059	10	13.265	6.108	9133	9	23.464	13.470	9207	8	11.936	21.966				
				9060	16	13.757	6.792	9134	25	24.128	13.614	9208	12	14.522	21.040				
				9061	12	13.784	6.787	9135	8	24.225	13.224	9209*	36	15.150	21.171				
				9062	10	16.526	6.531	9136	10	4.176	14.732	9210	20	17.940	21.190				
				9063	8	19.766	6.777	9137	21	5.976	14.695	9211	33	18.273	21.090				
				9064	9	21.476	6.175	9138*	34	6.000	14.554	9212	8	21.145	21.248				
				9065	18	21.701	6.948	9139*	30	9.670	14.765	9213	8	24.638	21.989				
				9066*	44	22.689	6.468	9140	9	12.444	14.750	9214	22	8.486	22.751				
				9067	22	22.704	6.940	9141	8	14.650	14.517	9215	12	9.972	22.188				
				9068	10	22.814	6.024	9142	11	14.984	14.365	9216	26	11.536	22.722				
				9069	9	11.400	7.084	9143	10	14.985	14.002	9217	8	21.404	22.942				
				9070	11	11.894	7.700	9144	8	16.472	14.913	9218	20	24.082	22.826				
				9071	17	18.765	7.160	9145	11	16.783	14.382	9219	10	24.824	22.979				
				9072	30	0.971	8.170	9146	12	23.355	14.514	9220	13	25.567	22.354				
				9073	18	4.776	8.470	9147	20	24.916	14.984	9221	10	25.629	22.906				
				9074	9	5.983	8.894	9148	8	25.417	14.938	9222	8	0.426	23.256				
				9075*	30	7.689	8.171	9149	22	10.872	15.548	9223	20	3.136	23.665				
				9076*	12	9.578	8.702	9150	19	13.914	15.116	9224	8	15.561	23.508				
				9077	8	9.701	8.328	9151*	58	15.858	15.416	9225	9	19.660	23.843				
				9078	13	10.858	8.640	9152	8	17.956	15.383	9226	19	1.360	24.795				
				9079	20	15.844	8.164	9153	14	20.839	15.600	9227	8	3.840	24.620				
				9080	14	16.386	8.068	9154	80	25.040	15.765	9228	8	6.329	24.936				
				9081	24	20.954	8.725	9155	31	25.940	15.965	9229	15	6.734	24.474				
				9082	9	0.512	9.988	9156*	31	4.026	16.472	9230	24	7.230	24.078				
				9083	10	4.749	9.768	9157	8	6.497	16.416	9231	8	8.662	24.216				
				9084	11	5.090	9.584	9158	23	6.986	16.995	9232	8	9.096	24.208				
				9085	10	21.774	9.306	9159	23	13.938	16.268	9233	8	9.300	24.780				

R.A. 5<sup>h</sup> 16<sup>m</sup>

Plate 440; 1915 Jan. 12.

Provisional Constants.

A	B	C
-0.1749	+0.	



9290	21	16.950	4.212	9364	51	24.353	12.312	9438	43	24.119	17.744	9512	17	16.539	23.015	9564*	41	4.768	1.386
9291	32	17.434	4.172	9365	16	0.845	13.494	9439	38	1.096	18.650	9513	32	20.316	23.836	9565	10	6.800	1.676
9292*	38	19.439	4.804	9366	46	1.518	13.629	9440	16	5.286	18.705	9514	23	22.538	23.629	9566	12	8.042	1.883
9293	44	19.918	4.868	9367	18	1.614	13.232	9441	39	5.290	18.284	9515	23	22.942	23.202	9567	8	14.851	1.282
9294	20	19.956	4.836	9368	43	4.638	13.148	9442	30	5.306	18.255	9516	36	23.782	23.554	9568*	21	18.159	1.117
9295	21	19.966	4.916	9369	40	8.078	13.518	9443*	63	6.174	18.375	9517	48	23.790	23.532	9569	14	19.946	1.444
9296*	46	5.623	5.300	9370*	50	8.715	13.625	9444	14	7.100	18.861	9518	12	25.700	23.954	9570	10	22.286	1.158
9297	35	5.826	5.008	9371	11	12.558	13.786	9445	46	8.587	18.487	9519	26	3.842	24.634	9571	11	24.032	1.915
9298	40	11.926	5.272	9372	32	16.258	13.605	9446	34	12.126	18.448	9520	31	4.137	24.576	9572	24	0.308	2.646
9299	25	16.344	5.971	9373	15	17.074	13.819	9447	55	13.733	18.130	9521*	55	5.005	24.250	9573*	48	0.699	2.462
9300	40	17.585	5.283	9374	39	19.198	13.358	9448	45	14.119	18.733	9522	10	6.761	24.124	9574	9	13.834	2.184
9301	25	19.554	5.916	9375	21	22.726	13.207	9449	12	14.585	18.870	9523	35	11.179	24.275	9575	8	14.819	2.104
9302	43	19.956	5.144	9376	20	23.583	13.094	9450	36	16.273	18.606	9524	36	11.448	24.777	9576*	33	18.688	2.722
9303*	52	22.267	5.324	9377*	150	24.037	13.592	9451	29	17.522	18.630	9525	31	14.800	24.700	9577	14	19.134	2.870
9304	62	0.014	6.494	9378	39	25.736	13.942	9452	8	22.014	18.908	9526	18	14.879	24.683	9578	15	19.534	2.716
9305	42	0.038	6.066	9379	16	0.096	14.790	9453	53	22.064	18.157	9527	17	15.294	24.050	9579	16	20.838	2.829
9306	19	0.144	6.050	9380	35	0.752	14.535	9454	17	24.334	18.064	9528	41	17.634	24.135	9580	9	2.448	3.371
9307	38	9.226	6.132	9381	41	2.316	14.992	9455*	51	3.352	19.401	9529	16	20.870	24.109	9581	11	6.056	3.206
9308	33	9.431	6.704	9382	15	2.818	14.938	9456	16	4.954	19.966	9530	24	23.118	24.722	9582	10	8.719	3.082
9309	16	20.343	6.505	9383	36	5.686	14.232	9457	15	5.180	19.454	9531	41	24.518	24.045	9583	10	9.134	3.626
9310	35	20.698	6.864	9384	30	5.913	14.524	9458	41	9.916	19.601	9532	14	24.548	24.074	9584	11	11.218	3.370
9311*	58	21.644	6.878	9385	29	6.637	14.100	9459	36	10.986	19.394	9533	10	3.187	25.420	9585	24	15.299	3.836
9312	40	7.054	7.924	9386	33	8.564	14.919	9460	41	11.202	19.577	9534	41	6.720	25.112	9586	10	15.523	3.446
9313	24	9.144	7.266	9387	29	12.206	14.330	9461	19	11.571	19.592	9535	14	8.228	25.315	9587	22	15.655	3.414
9314	12	13.087	7.518	9388	26	13.080	14.275	9462	42	13.602	19.942	9536	24	8.445	25.232	9588	8	18.652	3.094
9315	20	14.055	7.518	9389	43	16.054	14.958	9463	31	17.018	19.950	9537	30	9.428	25.696	9589*	28	22.180	3.110
9316	38	15.414	7.855	9390	15	16.570	14.644	9464	8	18.649	19.332	9538	27	9.428	25.709	9590	12	22.786	3.566
9317	12	19.372	7.722	9391	20	19.698	14.932	9465	22	19.038	19.881	9539	43	10.064	25.875	9591	10	23.667	3.388
9318	38	21.956	7.170	9392	18	21.165	14.198	9466	28	20.207	19.897	9540	24	10.772	25.449	9592	8	24.479	3.268
9319*	58	23.234	7.426	9393	20	23.332	14.922	9467	19	21.282	19.394	9541	14	11.207	25.420	9593	17	3.734	4.734
9320	26	3.590	8.654	9394*	127	2.436	15.772	9468	33	23.954	19.520	9542	40	12.103	25.815	9594	8	6.887	4.380
9321*	45	6.451	8.214	9395*	47	3.344	15.962	9469	42	25.556	19.170	9543	37	14.541	25.670	9595	9	7.407	4.806
9322	30	7.442	8.416	9396	27	4.831	15.156	9470	14	3.620	20.912	9544	32	15.832	25.476	9596	14	9.401	4.455
9323	21	8.294	8.328	9397	36	6.175	15.026	9471	30	5.771	20.638	9545	31	16.365	25.495	9597	8	17.351	4.739
9324	25	19.804	8.730	9398	39	8.831	15.362	9472	29	5.886	20.040	9546	51	17.415	25.595	9598	28	18.806	4.495
9325	16	21.458	8.050	9399*	45	9.344	15.344	9473	14	6.567	20.665					9599	10	19.461	4.766
9326	40	24.736	8.183	9400	26	9.430	15.266	9474*	70	8.030	20.774					9600	8	24.445	4.257
9327	42	25.687	8.942	9401*	50	11.048	15.016	9475	37	15.341	20.298					9601	9	0.577	5.414
9328	31	0.737	9.418	9402	11	12.976	15.804	9476	29	18.765	20.016					9602	10	5.100	5.244
9329	27	1.662	9.920	9403	10	14.135	15.056	9477	43	21.504	20.361					9603	8	6.686	5.042
9330	33	7.840	9.776	9404	17	15.476	15.132	9478	43	23.926	20.722					9604	9	7.946	5.846
9331*	42	8.828	9.908	9405	40	17.296	15.513	9479	21	24.712	20.020					9605*	49	8.480	5.708
9332	11	9.942	9.674	9406	26	18.814	15.306	9480	39	24.836	20.057					9606	15	9.234	5.230
9333	19	17.915	9.206	9407	47	19.030	15.480	9481	18	7.414	21.154					9607	14	15.136	5.096
9334	10	18.282	9.940	9408	37	19.603	15.624	9482	30	9.056	21.178					9608	8	15.576	5.334
9335	42	19.294	9.152	9409	24	19.700	15.184	9483	43	14.288	21.213					9609	10	17.514	5.332
9336	15	19.630	9.206	9410*	51	19.777	15.434	9484*	78	16.906	21.050					9610	9	19.484	5.504
9337	44	25.398	9.892	9411	28	19.962	15.402	9485	42	17.242	21.685					9611	13	19.949	5.460
9338	24	3.107	10.326	9412	64	25.046	15.236	9486	10	18.538	21.810					9612	22	20.361	5.122
9339	37	6.856	10.307	9413	30	0.002	16.168	9487	27	19.122	21.420					9613*	60	24.698	5.334
9340	39	7.235	10.757	9414	36	1.728	16.380	9488	40	22.448	21.399					9614	8	4.758	6.068
9341	35	12.805	10.220	9415	16	2.687	16.392	9489	30	23.515	21.461					9615	8	12.296	6.923
9342	24	14.723	10.789	9416	18	15.942	16.176	9490	11	0.600	22.092					9616	11	13.603	6.612
9343	39	15.511	10.838	9417	36	17.904	16.185	9491	21	0.784	22.794					9617	8	13.635	6.105
9344	26	21.239	10.944	9418	15	19.622	16.927	9492	41	1.551	22.838					9618	8	14.277	6.409
9345	37	24.324	10.836	9419*	75	20.278	16.543	9493	27	2.290	22.984					9619	10	16.708	6.796
9346	36	24.904	10.472	9420	39	20.712	16.198	9494	37	3.032	22.354					9620	11	17.193	6.932
9347	41	24.954	10.478	9421	42	20.730	16.184	9495	31	3.099	22.906					9621	8	18.718	6.412
9348	35	5.800	11.322	9422	39	20.764	16.460	9496	52	7.515	22.689					9622	8	19.737	6.614
9349	38	7.589	11.432	9423	32	2.784	17.554	9497	18	8.005	22.260					9623	11	21.470	6.265
9350	43	13.656	11.419	9424	39	5.223	17.934	9498*	51	9.841	22.805					9624	8	22.098	6.084
9351*	49	16.576	11.275	9425	43	6.371	17.922	9499	34	10.286	22.622					9625	9	23.420	6.268
9352	43	21.466	11.250	9426	33	6.823	17.673	9500	12	10.824	22.668					9626	8	24.079	6.182
9353	31	0.331	12.009	9427	30	9.021	17.226	9501*	51	12.254	22.086					9627*	36	0.688	7.296
9354	17	1.968	12.965	9428	26	9.614	17.570	9502	42	18.386	22.322					9628	19	6.006	7.009
9355	22	4.595	12.160	9429	25	10.796	17.940	9503	13	24.024	22.214					9629*	47	8.204	7.547
9356	32	5.466	12.454	9430	27	11.078	17.800	9504	35	24.564	22.333					9630*	57	9.098	7.932
9357	19	9.464	12.132	9431	37	11.469	17.463	9505	22	3.628	23.057								



9638	19	6.498	8.754	9712	8	16.547	12.124	9786	14	5.744	18.524	9860	13	10.515	23.420	9916	15	17.870	1.687
9639	8	8.378	8.692	9713	8	17.216	12.074	9787	17	9.856	18.271	9861	19	13.442	23.838	9917	17	19.194	1.551
9640	15	9.938	8.500	9714	10	17.830	12.823	9788	16	11.013	18.446	9862	20	15.396	23.510	9918	18	21.816	1.782
9641	14	14.454	8.039	9715	28	25.892	12.618	9789	8	11.120	18.680	9863	9	16.430	23.568	9919	17	1.526	2.693
9642	15	16.252	8.148	9716	9	0.284	13.085	9790	9	13.580	18.029	9864	8	16.882	23.314	9920	39	5.158	2.826
9643	10	17.206	8.988	9717*	100	1.586	13.443	9791*	42	14.432	18.534	9865	16	18.887	23.572	9921	21	5.615	2.945
9644	10	19.231	8.081	9718	12	3.306	13.767	9792	8	15.544	18.088	9866	10	19.252	23.331	9922	25	6.137	2.424
9645	20	19.964	8.022	9719	8	4.556	13.359	9793	8	15.986	18.420	9867	19	21.594	23.618	9923	42	7.022	2.228
9646	13	23.622	8.640	9720	13	7.401	13.497	9794	9	20.335	18.545	9868	14	24.180	23.198	9924	13	7.224	2.370
9647	20	24.152	8.826	9721	8	8.748	13.148	9795	8	23.796	18.262	9869*	130	25.000	23.055	9925	11	9.888	2.040
9648	8	0.164	9.276	9722	9	14.370	13.148	9796	17	23.809	18.365	9870	8	0.869	24.588	9926	16	11.168	2.720
9649	8	1.512	9.404	9723	8	15.302	13.605	9797	13	24.586	18.010	9871	8	3.684	24.248	9927	35	17.577	2.473
9650	9	2.026	9.088	9724	10	18.231	13.857	9798	11	1.618	19.376	9872	10	3.692	24.522	9928	22	17.865	2.246
9651	24	2.902	9.724	9725	17	19.484	13.273	9799	10	2.380	19.866	9873	16	5.622	24.540	9929	30	17.915	2.246
9652	9	3.198	9.818	9726	12	19.984	13.152	9800	16	2.506	19.900	9874	19	6.043	24.173	9930	15	19.358	2.455
9653*	29	4.368	9.132	9727*	27	20.969	13.026	9801	22	4.494	19.892	9875	8	6.294	24.828	9931	19	21.374	2.876
9654	10	5.108	9.069	9728	13	24.290	13.668	9802	14	6.449	19.416	9876	13	6.852	24.632	9932	21	23.222	2.946
9655*	36	6.002	9.340	9729	11	25.044	13.063	9803	8	6.478	19.470	9877	10	7.244	24.904	9933	26	24.096	2.565
9656	9	7.860	9.790	9730	9	0.916	14.789	9804	19	8.772	19.216	9878	8	9.753	24.944	9934	11	25.906	2.942
9657	14	11.005	9.515	9731	17	3.680	14.317	9805	10	9.908	19.294	9879	8	9.937	24.362	9935	18	8.481	3.314
9658	8	14.234	9.394	9732	9	12.384	14.411	9806	8	12.463	19.328	9880	10	12.048	24.099	9936	23	8.526	3.096
9659	10	15.102	9.490	9733	16	15.764	14.715	9807	10	18.496	19.320	9881	14	15.232	24.890	9937	24	10.366	3.026
9660	9	15.770	9.845	9734	11	19.883	14.386	9808	8	20.288	19.152	9882	17	24.538	24.531	9938	28	10.534	3.064
9661*	32	16.780	9.590	9735	19	21.851	14.300	9809	23	20.954	19.556	9883	10	25.014	24.662	9939	23	18.852	3.878
9662	9	19.124	9.984	9736	10	23.270	14.506	9810	8	21.682	19.900	9884	10	4.507	25.054	9940*	66	20.557	3.074
9663	18	19.770	9.714	9737	8	25.900	14.346	9811	9	21.876	19.734	9885	8	5.880	25.423	9941	11	20.715	3.236
9664	11	21.248	9.770	9738*	40	2.634	15.076	9812	9	22.363	19.374	9886	8	9.433	25.421	9942	17	21.892	3.110
9665	10	21.386	9.234	9739	10	4.320	15.278	9813	11	23.153	19.302	9887	52	11.610	25.385	9943	18	22.674	3.086
9666*	55	22.576	9.494	9740	26	9.082	15.760	9814	22	23.192	19.923	9888	19	12.679	25.978	9944	23	23.169	3.284
9667	10	22.856	9.752	9741	16	9.920	15.605	9815	12	23.762	19.005	9889	14	15.834	25.362	9945*	44	23.836	3.185
9668	12	24.242	9.556	9742	8	11.328	15.704	9816	8	23.922	19.600	9890	8	22.384	25.816	9946	20	24.364	3.065
9669	10	24.248	9.109	9743	9	12.268	15.115	9817	23	1.606	20.574	9891	10	22.782	25.832	9947*	50	24.854	3.656
9670	8	24.512	9.095	9744	30	13.281	15.328	9818	8	3.679	20.907	9892	12	23.960	25.338	9948	20	24.974	3.336
9671	11	24.732	9.482	9745	13	19.600	15.230	9819	18	10.247	20.816					9949	18	0.296	4.354
9672	8	24.915	9.680	9746	8	19.764	15.530	9820	12	11.226	20.964					9950	13	1.174	4.169
9673	18	25.177	9.099	9747	8	21.356	15.598	9821	10	15.184	20.127					9951	9	1.549	4.180
9674	15	1.839	10.688	9748	31	22.248	15.487	9822	13	16.202	20.207					9952	16	6.176	4.141
9675	14	2.413	10.314	9749	20	3.706	16.371	9823	8	19.080	20.171					9953	8	6.486	4.042
9676	16	2.462	10.320	9750	10	4.888	16.525	9824	8	21.432	20.273					9954	21	7.889	4.543
9677	8	10.242	10.120	9751	16	8.326	16.540	9825*	30	23.138	20.053					9955	25	11.452	4.016
9678	10	13.582	10.642	9752	21	8.828	16.832	9826	8	24.806	20.632					9956	12	12.672	4.774
9679	14	18.768	10.950	9753	8	9.743	16.742	9827	18	0.144	21.280					9957	9	16.976	4.193
9680	10	19.002	10.304	9754	22	11.396	16.202	9828	14	1.209	21.330					9958	20	17.274	4.934
9681	9	20.995	10.250	9755	10	11.529	16.662	9829	14	7.210	21.030					9959	16	19.066	4.924
9682	12	21.508	10.858	9756	8	12.724	16.738	9830	20	7.301	21.221					9960	17	19.084	4.551
9683	11	23.754	10.994	9757	11	12.984	16.952	9831	30	9.134	21.033					9961	39	4.412	5.264
9684	11	24.066	10.313	9758	18	13.578	16.132	9832	11	9.134	21.739					9962	15	8.136	5.898
9685	13	24.722	10.686	9759	18	14.398	16.765	9833	11	10.680	21.350					9963	12	9.466	5.280
9686	16	25.595	10.564	9760	14	14.478	16.705	9834	8	12.203	21.852					9964	14	13.534	5.546
9687	13	5.180	11.464	9761	10	15.302	16.399	9835	18	14.406	21.968					9965	8	14.403	5.242
9688	8	7.766	11.686	9762*	31	16.440	16.450	9836	21	21.420	21.244					9966	16	18.284	5.762
9689	18	8.143	11.376	9763	8	16.702	16.246	9837	8	22.878	21.221					9967	22	19.796	5.283
9690	8	8.370	11.364	9764	11	17.356	16.372	9838	12	23.169	21.265					9968	29	20.555	5.252
9691	8	11.261	11.046	9765	8	17.860	16.538	9839	11	23.734	21.690					9969	15	20.556	5.584
9692*	43	12.733	11.773	9766	11	20.110	16.830	9840	18	24.618	21.508					9970	10	21.736	5.374
9693	10	13.650	11.019	9767	12	21.500	16.570	9841	10	24.632	21.756					9971	17	24.234	5.213
9694	14	13.728	11.305	9768	36	25.720	16.385	9842	8	1.510	22.524					9972	17	24.360	5.884
9695	11	13.743	11.891	9769	23	1.749	17.595	9843	11	2.276	22.178					9973*	73	2.205	6.106
9696	10	16.632	11.449	9770	10	3.842	17.216	9844	10	4.766	22.505					9974	18	12.264	6.522
9697	24	16.756	11.560	9771	8	7.174	17.358	9845	8	6.489	22.180					9975	21	13.456	6.306
9698	8	17.411	11.932	9772	11	11.170	17.146	9846	19	7.814	22.474					9976	14	5.334	7.090
9699	11	18.826	11.364	9773	11	11.840	17.172	9847	10	8.484	22.872					9977	15	5.504	7.712
9700	11	21.502	11.090	9774	19	13.330	17.296	9848	8	13.650	22.220					9978	16	12.074	7.356
9701	24	21.540	11.066	9775*	38	14.818	17.272	9849	8	15.981	22.520					9979	14	12.148	7.347
9702	25	22.406	11.544	9776	12	15.431	17.217	9850	9	17.087	22.792					9980	18	14.452	7.578
9703	8	23.946	11.582	9777	13	15.593	17.555	9851	17	18.426	22.784					9981	33	15.592	7.125
9704	8	24.430	11.378	9778	14	17.234	17.270	9852	15	19.680	22.991					9982	12	16.274	7.649
9705	10	25.264	11.584	9779	16	17.422	17.898	9853	8	20.460	22.334					9983	25	19.015	7.508
9706	10	1																	



9990	13	17.936	8.045	10064	15	8.166	14.796	10138	15	22.644	20.198	10203	19	7.345	0.056	10277	13	13.806	3.574
9991	33	21.878	8.050	10065	8	12.896	14.756	10139	17	25.054	20.234	10204	19	8.194	0.248	10278	20	15.145	3.308
9992	22	1.166	9.416	10066*	45	14.187	14.108	10140	8	3.698	21.375	10205	18	11.495	0.944	10279	25	16.108	3.236
9993	24	1.698	9.602	10067	25	17.506	14.624	10141	17	4.830	21.158	10206	20	12.225	0.758	10280	13	18.213	3.966
9994	30	2.724	9.866	10068*	70	19.500	14.683	10142	24	10.544	21.734	10207	21	12.576	0.226	10281	18	21.586	3.248
9995	20	4.013	9.472	10069	17	21.106	14.696	10143	20	12.764	21.620	10208	21	12.911	0.954	10282	39	22.708	3.546
9996	19	4.886	9.395	10070	24	21.966	14.264	10144	20	13.739	21.643	10209	28	13.212	0.816	10283	20	24.166	3.128
9997	16	5.210	9.636	10071	34	22.676	14.369	10145	8	14.160	21.534	10210*	53	15.444	0.784	10284	34	24.328	3.575
9998	8	8.655	9.546	10072	38	25.241	14.186	10146	12	23.428	21.686	10211	30	15.626	0.786	10285	27	1.384	4.938
9999*	41	10.856	9.149	10073	9	3.490	15.104	10147	40	23.525	21.226	10212*	60	16.316	0.876	10286	16	4.970	4.552
10000	16	11.700	9.484	10074*	43	6.919	15.855	10148	14	0.816	22.044	10213*	54	17.717	0.964	10287	30	5.856	4.551
10001	11	11.806	9.566	10075	21	11.210	15.186	10149	25	2.266	22.278	10214	31	20.518	0.364	10288	14	6.392	4.233
10002	18	12.876	9.962	10076	14	12.964	15.814	10150	10	2.280	22.525	10215	41	20.596	0.824	10289	14	6.435	4.016
10003	15	15.102	9.844	10077*	38	14.622	15.952	10151	13	3.844	22.495	10216	9	22.114	0.126	10290	21	7.786	4.210
10004	13	17.657	9.714	10078	20	15.706	15.534	10152	21	4.387	22.265	10217	16	25.078	0.344	10291	22	7.952	4.158
10005	21	18.634	9.824	10079	11	16.228	15.600	10153	25	18.050	22.594	10218	22	25.247	0.604	10292	10	8.124	4.926
10006	20	19.238	9.444	10080	16	17.706	15.004	10154	22	22.664	22.517	10219	12	25.880	0.647	10293	23	9.345	4.554
10007	13	21.520	9.494	10081	11	19.788	15.866	10155	64	0.576	23.206	10220	10	0.214	1.125	10294	14	10.446	4.777
10008	8	21.860	9.187	10082	8	22.405	15.828	10156	17	1.312	23.192	10221	20	0.256	1.474	10295	13	11.439	4.512
10009	12	23.144	9.315	10083	20	23.270	15.742	10157	14	1.838	23.973	10222	9	4.182	1.714	10296	20	11.475	4.156
10010	64	0.119	10.283	10084*	60	23.752	15.036	10158*	173	2.643	23.816	10223	29	5.304	1.480	10297	27	12.536	4.974
10011	11	0.410	10.539	10085	17	5.300	16.596	10159*	56	5.246	23.330	10224	21	7.296	1.276	10298	19	13.432	4.118
10012	12	1.794	10.332	10086	11	6.154	16.540	10160	29	9.384	23.736	10225	22	7.514	1.634	10299	19	13.667	4.956
10013	16	2.284	10.252	10087	9	7.873	16.226	10161	35	13.774	23.714	10226	23	10.964	1.176	10300	13	13.886	4.278
10014	11	3.440	10.964	10088	20	8.156	16.364	10162	20	13.994	23.693	10227	12	11.467	1.340	10301	20	17.298	4.924
10015	39	12.460	10.756	10089	20	8.314	16.300	10163	28	15.272	23.574	10228	20	11.644	1.435	10302	43	17.300	4.018
10016	10	12.700	10.066	10090	21	9.005	16.826	10164	43	16.616	23.506	10229	37	11.644	1.471	10303*	80	20.189	4.295
10017*	44	12.826	10.407	10091	31	9.802	16.474	10165	15	16.824	23.399	10230	35	11.954	1.974	10304	34	20.464	4.316
10018	22	14.332	10.234	10092	24	10.170	16.070	10166*	66	20.646	23.655	10231	14	12.804	1.746	10305	33	20.664	4.035
10019*	45	15.374	10.372	10093	22	13.866	16.376	10167*	97	21.015	23.860	10232	22	13.153	1.452	10306	28	20.697	4.437
10020	28	19.689	10.232	10094	14	14.398	16.838	10168*	64	21.044	23.612	10233	13	13.506	1.932	10307	15	21.201	4.735
10021	23	21.206	10.076	10095	20	15.608	16.568	10169	15	21.300	23.922	10234*	58	14.394	1.344	10308	18	21.635	4.134
10022	16	23.875	10.196	10096	31	15.662	16.266	10170	12	7.064	24.924	10235	14	14.594	1.674	10309	15	24.454	4.266
10023	16	1.314	11.774	10097	23	1.864	17.940	10171	20	7.819	24.036	10236	31	16.159	1.679	10310	21	24.465	4.885
10024	18	1.624	11.087	10098*	40	3.322	17.146	10172	14	12.869	24.366	10237	11	17.637	1.118	10311	20	24.548	4.276
10025	18	2.282	11.455	10099	8	5.276	17.574	10173	26	13.926	24.643	10238	39	18.545	1.140	10312	17	0.626	5.454
10026	21	3.155	11.326	10100	21	8.938	17.444	10174	22	14.799	24.980	10239	15	19.523	1.655	10313	20	1.514	5.616
10027	24	5.266	11.824	10101	16	14.204	17.088	10175	22	18.953	24.239	10240	27	19.734	1.306	10314*	35	4.536	5.406
10028	8	7.406	11.114	10102	17	21.900	17.209	10176*	74	21.216	24.068	10241	22	20.464	1.010	10315	22	5.872	5.506
10029	11	7.955	11.640	10103	23	24.456	17.324	10177	17	21.511	24.796	10242	19	20.906	1.684	10316	19	9.656	5.745
10030	18	8.817	11.807	10104	13	24.566	17.866	10178	15	23.854	24.200	10243	12	22.417	1.093	10317*	46	10.836	5.498
10031	12	10.844	11.650	10105	17	2.204	18.780	10179	37	24.346	24.775	10244	12	22.572	1.446	10318	24	11.046	5.866
10032	18	13.419	11.897	10106	10	3.692	18.156	10180	23	2.212	25.301	10245	24	0.356	2.685	10319	25	12.026	5.774
10033	13	13.479	11.329	10107	12	5.464	18.085	10181	18	2.690	25.426	10246*	40	0.965	2.922	10320	19	14.203	5.933
10034	15	13.854	11.214	10108	24	9.917	18.807	10182	16	4.526	25.767	10247	22	1.226	2.295	10321	40	17.269	5.694
10035	21	24.382	11.894	10109	20	13.234	18.686	10183	13	4.730	25.272	10248	34	1.496	2.792	10322	9	17.532	5.564
10036	15	2.832	12.354	10110	13	16.191	18.564	10184	17	5.912	25.099	10249	21	3.034	2.660	10323	36	19.206	5.974
10037	18	3.950	12.196	10111*	40	16.550	18.950	10185	16	8.467	25.570	10250	29	4.786	2.136	10324	27	19.546	5.674
10038	23	5.993	12.154	10112	21	19.420	18.938	10186	21	12.673	25.259	10251	24	5.146	2.197	10325	23	21.484	5.195
10039	33	6.906	12.836	10113	23	21.203	18.172					10252	23	10.734	2.577	10326	13	21.613	5.286
10040	17	8.055	12.425	10114	8	22.108	18.222					10253	20	11.746	2.305	10327	10	24.407	5.856
10041*	55	11.894	12.334	10115	16	23.428	18.486					10254	18	11.934	2.334	10328*	57	0.734	6.956
10042	17	13.825	12.302	10116	22	23.910	18.666					10255	27	13.403	2.550	10329	15	2.774	6.916
10043	13	15.216	12.262	10117	17	1.392	19.780					10256	17	13.650	2.896	10330	24	3.574	6.116
10044	20	16.776	12.780	10118	21	1.428	19.144					10257	24	17.934	2.216	10331	21	4.018	6.376
10045	17	18.506	12.406	10119	22	5.434	19.164					10258*	48	20.684	2.769	10332	31	4.398	6.850
10046*	65	19.056	12.878	10120	15	5.584	19.438					10259	29	21.866	2.347	10333	18	4.509	6.024
10047	26	19.832	12.164	10121	16	12.892	19.445					10260	32	24.338	2.395	10334*	44	4.536	6.780
10048	9	21.382	12.400	10122	20	13.052	19.961					10261	26	0.304	3.024	10335	22	6.142	6.738
10049	15	2.620	13.828	10123	17	18.481	19.926					10262*	45	1.986	3.384	10336	16	7.116	6.154
10050*	37	3.464	13.380	10124	15	19.589	19.254					10263	26	2.106	3.062	10337	17	7.208	6.987
10051	11	6.542	13.932	10125	37	21.262	19.435					10264	21	3.828	3.856	10338	10	7.522	6.660
10052	8	9.113	13.328	10126	15	22.991	19.058					10265	11	4.674	3.713	10339	19	8.176	6.274
10053	20	11.844	13.184	10127	36	0.769	20.834					10266	24	4.899	3.936	10340	21	10.784	6.536
10054	15	16.594	13.227	10128	13	0.780	20												



10351	13	5.588	7.994	10425	19	25.964	10.084	10499	19	25.036	13.275	10573	9	3.736	17.981	10647	32	10.166	20.346
10352	15	5.728	7.712	10426	10	1.383	11.958	10500	24	25.196	13.232	10574	11	7.390	17.190	10648	13	10.764	20.188
10353	20	7.887	7.320	10427	21	1.582	11.623	10501	19	25.400	13.527	10575	17	7.846	17.638	10649	15	12.837	20.066
10354	20	8.785	7.318	10428	19	2.625	11.442	10502*	62	0.974	14.772	10576	18	8.492	17.738	10650	22	14.306	20.175
10355	17	10.362	7.067	10429	14	3.290	11.219	10503	12	3.751	14.604	10577	19	9.528	17.491	10651	16	14.728	20.282
10356	15	11.200	7.471	10430	14	3.499	11.102	10504	19	6.047	14.502	10578	22	9.606	17.794	10652	9	15.149	20.935
10357	21	14.354	7.813	10431	9	4.783	11.663	10505	12	6.558	14.388	10579	17	9.730	17.164	10653	13	16.537	20.986
10358	11	18.834	7.654	10432	9	5.564	11.315	10506	19	6.950	14.995	10580	22	10.040	17.366	10654	22	17.948	20.519
10359	18	19.054	7.272	10433	17	5.623	11.570	10507	25	13.036	14.976	10581	24	16.254	17.056	10655	20	18.296	20.232
10360	10	21.165	7.467	10434	17	6.294	11.950	10508	25	13.884	14.734	10582	23	22.069	17.596	10656	23	18.576	20.326
10361	33	23.506	7.015	10435	13	6.475	11.608	10509	17	14.902	14.552	10583	10	22.472	17.170	10657	10	18.706	20.324
10362	20	24.032	7.494	10436	30	9.446	11.072	10510	20	15.504	14.836	10584	21	23.462	17.826	10658	24	18.916	20.845
10363	13	24.376	7.900	10437	15	13.145	11.006	10511	19	16.162	14.388	10585	23	24.110	17.916	10659	26	20.816	20.975
10364	12	1.715	8.987	10438*	51	13.369	11.314	10512	22	16.425	14.078	10586	19	24.340	17.225	10660	34	21.538	20.860
10365	21	3.415	8.926	10439	25	14.422	11.236	10513	23	17.020	14.614	10587	11	25.335	17.296	10661	39	21.711	20.430
10366	33	4.371	8.950	10440	15	17.141	11.398	10514	13	17.585	14.287	10588	11	0.112	18.524	10662	31	22.496	20.646
10367	16	11.586	8.524	10441	29	17.532	11.520	10515	41	19.364	14.677	10589	22	0.247	18.802	10663	19	22.575	20.468
10368	21	12.964	8.064	10442	11	18.200	11.394	10516	26	25.250	14.724	10590	20	0.684	18.226	10664	28	22.594	20.874
10369	20	14.614	8.434	10443	31	18.494	11.659	10517	14	25.722	14.228	10591	12	0.837	18.806	10665	14	22.972	20.474
10370	31	15.343	8.426	10444	30	20.054	11.096	10518	15	25.726	14.536	10592	19	1.109	18.737	10666	23	23.306	20.084
10371	22	15.690	8.458	10445	21	22.045	11.406	10519	12	0.335	15.032	10593	21	1.164	18.404	10667	13	23.419	20.152
10372	12	18.133	8.457	10446	18	22.456	11.576	10520	21	0.500	15.484	10594	17	2.206	18.513	10668	25	25.816	20.660
10373	14	18.644	8.127	10447	17	22.959	11.562	10521	20	3.704	15.592	10595	21	3.120	18.614	10669	26	3.505	21.985
10374	35	18.946	8.694	10448	12	23.754	11.906	10522	11	4.496	15.206	10596	10	3.672	18.102	10670	13	4.234	21.986
10375	23	20.876	8.294	10449	32	24.473	11.406	10523	19	6.097	15.834	10597	18	3.838	18.974	10671*	64	4.552	21.918
10376	15	21.380	8.380	10450	10	24.625	11.002	10524	21	6.174	15.506	10598	13	4.628	18.962	10672	21	5.396	21.334
10377	13	21.724	8.301	10451	16	24.772	11.094	10525	23	6.554	15.452	10599	15	4.916	18.934	10673	14	7.472*	21.954
10378	13	22.890	8.462	10452	15	0.546	12.635	10526	23	6.860	15.581	10600	18	7.536	18.206	10674	33	8.526	21.284
10379	35	25.165	8.326	10453*	30	1.056	12.986	10527	10	7.460	15.236	10601	13	8.576	18.648	10675	14	8.585	21.609
10380	44	25.186	8.542	10454	11	2.062	12.207	10528	28	8.511	15.456	10602	20	8.790	18.170	10676	11	8.844	21.674
10381	24	25.834	8.424	10455	17	2.137	12.486	10529	26	10.697	15.866	10603	23	9.148	18.734	10677	22	10.074	21.334
10382	19	1.068	9.932	10456	10	2.409	12.652	10530	13	12.745	15.578	10604	14	10.762	18.390	10678	11	13.320	21.642
10383	28	4.312	9.736	10457	22	3.100	12.943	10531	15	12.766	15.724	10605	22	11.774	18.450	10679	17	13.786	21.618
10384	16	4.449	9.290	10458*	44	3.518	12.037	10532	24	13.268	15.998	10606	20	13.596	18.620	10680	21	13.953	21.128
10385	21	5.183	9.199	10459	19	5.128	12.995	10533	25	13.912	15.003	10607*	40	13.620	18.296	10681	21	15.554	21.622
10386	33	6.132	9.456	10460	16	6.115	12.492	10534	31	15.282	15.904	10608	23	15.472	18.734	10682	36	15.562	21.198
10387*	50	6.786	9.574	10461	19	6.982	12.551	10535	22	15.443	15.283	10609*	41	16.488	18.236	10683	21	15.994	21.812
10388	20	8.694	9.226	10462	30	8.450	12.926	10536	10	15.889	15.512	10610	12	19.095	18.804	10684	26	16.724	21.348
10389	14	10.336	9.773	10463	12	10.280	12.087	10537	11	16.516	15.026	10611	22	19.376	18.717	10685	22	16.753	21.341
10390	28	10.699	9.092	10464	19	12.205	12.237	10538	32	17.026	15.384	10612	11	21.859	18.128	10686	13	18.366	21.100
10391	15	12.064	9.570	10465	15	12.512	12.140	10539	11	18.392	15.312	10613	28	22.134	18.594	10687	42	19.076	21.796
10392	20	13.012	9.106	10466	15	14.184	12.990	10540	13	22.736	15.241	10614	25	22.524	18.822	10688	12	19.084	21.186
10393*	60	13.122	9.957	10467	28	14.514	12.734	10541	13	25.092	15.943	10615	20	23.576	18.141	10689	16	19.217	21.836
10394	19	15.686	9.886	10468	12	14.557	12.477	10542	13	25.354	15.136	10616	25	23.636	18.346	10690	13	19.534	21.888
10395	20	18.646	9.674	10469	18	16.684	12.938	10543	11	2.136	16.128	10617	19	23.696	18.984	10691	12	19.750	21.896
10396*	59	19.803	9.114	10470	9	18.462	12.686	10544	26	3.420	16.247	10618	26	23.762	18.112	10692	13	20.950	21.076
10397	23	20.000	9.330	10471	13	21.462	12.478	10545	18	4.224	16.045	10619	11	25.202	18.734	10693	24	21.276	21.184
10398	21	21.082	9.050	10472	22	24.840	12.874	10546	20	4.778	16.652	10620	17	25.206	18.036	10694	20	22.178	21.776
10399	21	21.095	9.298	10473	36	25.540	12.250	10547*	41	5.470	16.016	10621	17	25.707	18.084	10695	30	23.912	21.708
10400	20	21.480	9.434	10474	15	25.792	12.968	10548	21	7.122	16.390	10622	19	1.699	19.163	10696	10	3.016	22.186
10401	19	22.264	9.460	10475	21	25.896	12.652	10549	10	7.731	16.936	10623	28	2.326	19.962	10697	14	4.296	22.465
10402	34	22.326	9.348	10476	18	0.948	13.630	10550	19	8.366	16.680	10624	18	3.864	19.043	10698	22	4.430	22.556
10403	22	23.888	9.988	10477	13	1.064	13.646	10551	12	9.457	16.427	10625*	68	6.589	19.706	10699	15	4.582	22.608
10404	18	24.386	9.603	10478	38	2.459	13.910	10552	26	12.198	16.188	10626	13	9.900	19.180	10700	26	4.688	22.124
10405	26	24.869	9.972	10479	13	2.674	13.074	10553	18	13.872	16.908	10627	36	11.651	19.460	10701	12	4.823	22.433
10406	20	25.646	9.458	10480	20	2.950	13.219	10554*	57	13.874	16.324	10628	11	13.262	19.736	10702	12	5.690	22.095
10407	20	4.666	10.886	10481	18	3.564	13.702	10555	23	18.294	16.703	10629	19	17.062	19.664	10703	21	5.721	22.288
10408*	115	4.884	10.245	10482	16	5.894	13.374	10556	24	18.450	16.040	10630	29	19.687	19.278	10704	21	5.901	22.349
10409*	50	6.664	10.395	10483*	68	7.444	13.640	10557	21	18.552	16.637	10631	24	20.414	19.102	10705*	43	7.816	22.772
10410	17	6.680	10.048	10484	10	8.244	13.014	10558	11	18.926	16.889	10632	16	21.210	19.001	10706	31	7.884	22.773
10411	28	8.344	10.728	10485	12	8.963	13.196	10559	21	18.982	16.886	10633	21	21.812	19.356	10707*	44	8.642	22.656
10412	18	9.736	10.444	10486	15	9.126	13.818	10560	19	20.175	16.314	10634	12	24.234	19.376	10708	10	9.406	22.269
10413	25																		



10721	15	21.866	22.414	10856*	73	6.870	4.292	10930	19	4.288	11.730	11004	49	8.026	16.392
10722	34	22.455	22.406	10857	43	10.800	4.922	10931	39	4.738	11.771	11005	24	11.166	16.512
10723	10	24.834	22.562	10858	17	15.046	4.822	10932	18	6.182	11.182	11006	32	11.363	16.240
10724	15	25.672	22.713	10859*	86	15.570	4.816	10933	42	7.213	11.566	11007	17	11.616	16.100
10725	16	25.975	22.664	10860	31	16.234	4.726	10934	18	9.529	11.184	11008	36	13.243	16.323
10726	24	0.772	23.514	10861	47	18.543	4.048	10935	51	9.653	11.085	11009	19	15.300	16.488
10727	10	1.122	23.625	10862	29	19.077	4.088	10936	30	11.664	11.844	11010*	56	15.505	16.638
10728	24	1.161	23.934	10863	54	23.900	4.822	10937	34	13.118	11.484	11011	36	16.415	16.130
10729	29	4.086	23.046	10864	49	24.434	4.106	10938	31	13.607	11.144	11012	24	18.056	16.876
10730	16	5.403	23.934	10865	32	1.780	5.414	10939	38	13.778	11.078	11013	32	19.760	16.860
10731	34	7.107	23.494	10866	22	6.754	5.258	10940	31	14.194	11.500	11014	35	20.130	16.252
10732	21	7.174	23.154	10867	23	6.954	5.826	10941	13	18.383	11.622	11015	13	20.211	16.245
10733	15	11.031	23.202	10868	14	9.104	5.158	10942	37	18.633	11.034	11016	46	21.601	16.518
10734	21	11.653	23.902	10869	22	9.256	5.519	10943	36	20.536	11.114	11017*	78	23.574	16.220
10735	13	13.124	23.525	10870	38	12.066	5.435	10944*	54	22.033	11.231	11018*	58	24.025	16.707
10736	12	13.162	23.628	10871	52	12.852	5.257	10945	35	23.346	11.855	11019	43	3.207	17.254
10737	24	14.288	23.887	10872	17	14.775	5.786	10946	43	25.164	11.273	11020	35	6.679	17.078
10738	19	15.275	23.022	10873*	66	15.244	5.194	10947	48	2.062	12.766	11021	34	10.520	17.900
10739	22	15.628	23.795	10874	55	19.957	5.283	10948	24	3.823	12.018	11022	16	11.116	17.179
10740	21	15.640	23.624	10875	16	4.778	6.112	10949	36	3.836	12.096	11023	39	11.424	17.522
10741	35	17.679	23.366	10876*	54	5.421	6.738	10950	22	5.921	12.191	11024	37	12.661	17.938
10742	20	18.190	23.394	10877	41	9.151	6.351	10951	52	6.735	12.038	11025	36	16.773	17.170
10743	11	19.553	23.680	10878	45	9.364	6.606	10952	30	8.400	12.655	11026	14	19.310	17.978
10744	18	20.146	23.066	10879	24	14.570	6.194	10953	20	10.406	12.728	11027	32	19.479	17.412
10745	18	20.338	23.514	10880	23	14.906	6.226	10954	26	13.510	12.038	11028	22	21.142	17.232
10746	33	20.373	23.375	10881	32	15.724	6.357	10955	34	14.036	12.291	11029	50	22.648	17.138
10747	27	20.468	23.520	10882	29	16.658	6.886	10956	28	19.988	12.970	11030	16	0.911	18.570
10748	25	21.328	23.535	10883	54	20.956	6.958	10957	29	21.099	12.198	11031	30	0.971	18.373
10749	47	23.925	23.643	10884	35	25.413	6.934	10958	32	21.006	12.148	11032	44	1.156	18.892
10750	17	24.296	23.721	10885	38	0.850	7.561	10959	12	22.194	12.906	11033	36	1.273	18.650
10751	40	1.654	24.505	10886*	64	4.570	7.784	10960	14	22.976	12.190	11034	38	1.622	18.452
10752	18	6.145	24.732	10887	47	8.178	7.493	10961	40	24.686	12.994	11035	33	7.244	18.213
10753	17	6.246	24.109	10888	34	9.562	7.047	10962	50	25.400	12.442	11036	26	8.081	18.018
10754	40	6.697	24.724	10889	32	13.262	7.887	10963	33	2.270	13.398	11037	20	8.598	18.415
10755	17	8.354	24.315	10890	26	17.235	7.914	10964	38	2.632	13.753	11038	37	9.368	18.020
10756*	43	8.804	24.454	10891	40	18.312	7.774	10965	14	3.324	13.158	11039	42	16.942	18.054
10757	19	10.974	24.974	10892	37	18.700	7.644	10966	48	3.821	13.797	11040	33	22.790	18.870
10758	15	11.862	24.638	10893	45	21.664	7.978	10967	48	5.377	13.309	11041	12	23.430	18.272
10759	25	13.442	24.064	10894	47	23.025	7.282	10968	30	8.732	13.628	11042	17	24.250	18.971
10760	22	13.916	24.114	10895	56	23.995	7.714	10969	24	11.317	13.480	11043	50	24.358	18.196
10761	23	14.370	24.617	10896	19	1.382	8.033	10970*	64	11.472	13.718	11044	34	0.049	19.383
10762	9	19.204	24.802	10897	46	2.526	8.846	10971	14	11.496	13.692	11045	17	1.222	19.525
10763	35	19.236	24.330	10898	36	3.197	8.934	10972	12	15.184	13.061	11046	23	7.810	19.470
10764	11	19.942	24.756	10899	36	6.125	8.226	10973	24	17.590	13.415	11047	40	10.836	19.348
10765	40	22.667	24.425	10900	19	6.992	8.200	10974	44	19.726	13.698	11048	38	21.994	19.424
10766	20	0.186	25.551	10901	26	7.166	8.444	10975*	62	20.083	13.104	11049	48	22.030	19.944
10767*	47	8.083	25.102	10902	14	16.250	8.249	10976	24	21.444	13.274	11050	44	25.776	19.358
10768	24	9.374	25.040	10903	30	16.985	8.844	10977	36	22.484	13.148	11051	19	0.848	20.636
10769	19	11.484	25.780	10904	13	17.544	8.454	10978	33	22.853	13.228	11052	31	3.524	20.008
10770	42	12.136	25.990	10905	37	18.054	8.061	10979	40	23.356	13.950	11053*	65	4.194	20.583
10771	23	13.034	25.958	10906	11	18.391	8.492	10980	18	2.842	14.045	11054	38	5.020	20.540
10772	20	15.796	25.027	10907	38	18.601	8.738	10981	48	4.318	14.606	11055	17	6.048	20.423
10773	38	17.056	25.432	10908	17	18.670	8.188	10982	12	13.032	14.672	11056	27	11.566	20.399
10774	11	19.297	25.090	10909	23	20.502	8.414	10983*	62	17.558	14.725	11057*	72	12.100	20.119
10775	23	20.063	25.430	10910	32	21.987	8.844	10984	34	19.364	14.104	11058*	59	12.661	20.906
10776	23	20.134	25.360	10911	36	24.384	8.852	10985	12	20.828	14.722	11059	36	14.230	20.193
10777	19	20.896	25.842	10912*	59	2.550	9.062	10986	34	2.707	15.243	11060	21	15.240	20.354
10778	14	23.366	25.902	10913	37	7.300	9.478	10987	47	3.713	15.129	11061	42	17.158	20.796
10779	60	25.910	25.690	10914	36	8.154	9.230	10988	34	6.794	15.409	11062	28	20.356	20.810
				10915	52	10.074	9.742	10989	36	7.373	15.026	11063	40	20.638	20.565
				10916*	58	13.580	9.512	10990*	47	7.771	15.172	11064	40	21.938	20.616
				10917	42	15.836	9.150	10991	53	9.985	15.113	11065	14	25.340	20.618
				10918	26	17.494	9.306	10992	31	11.689	15.743	11066	24	0.053	21.204
				10919	29	19.778	9.930	10993	17	13.771	15.970	11067	28	0.149	21.432
				10920	29	1.278	10.532	10994	34	16.872	15.986	11068	34	3.368	21.169
				10921	36	2.256	10.497	10995	37	17.438	15.549	11069	35	4.212	21.708
				10922*	64	14.367	10.174	10996	23	18.696	15.679	11070	28	6.208	21.470
				10923	45	16.885	10.734	10997	37	20.120	15.946	11071	36	8.480	21.483
				10924	35	17.276	10.536	10998	31	21.398	15.627	11072	26	9.069	21.574
				10925*	76	23.228	10.152	10999	56	21.545	15.759	11073	15	11.430	21.913
				10926	13	25.222	10.140	11000	30	1.672	16.620	11074	16	12.748	21.813
				10927	51	0.400	11.307	11001	36	3.960	16.377	11075	15	13.262	21.565
				10928	44	1.880	11.938	11002	13	4.413	16.488	11076	17	13.448	21.670
				10929	33	3.656	11.893	11003	15	5.204	16.857	11077	43	13.606	21.648

R.A. 5<sup>h</sup> 48<sup>m</sup>

Plate 389; 1914 Dec. 20.

Provisional Constants.

A B C  
 $-0.1772 + 0.00826 - 2.093$

D E F  
 $-0.00769 - 0.01789 + 6.156$

Mag. =  $18.0 - 1.09\sqrt{d}$ 

No.	d	x	y
10800	30	0.105	0.119
10801	39	3.680	0.832
10802	30	6.589	0.725
10803	34	10.600	0.684
10804	12	12.030	0.346
10805	56	16.891	0.558
10806	19	17.080	0.242
10807	16	18.562	0.881
10808	34	18.812	0.94
10809	32	19.395	0.716
10810	30	20.776	0.694
10811	50	21.936	0.080
10812*	88	22.424	0.530
10813	36	3.538	1.758
10814	33	4.883	1.298
10815	35	7.234	1.313
10816*	71	7.423	1.905
10817*	82	8.714	1.594
10818	46	8.856	1.138
10819*	71	8.930	1.676
10820	37	9.330	1.748
10821	38	10.096	1.654
10822*	54	11.986	1.456
10823*	64	15.158	1.656
10824*	72	15.743	1.808
10825	29	16.356	1.470
10826	46	19.826	1.048
10827	45	1.614	2.927
10828	46	3.479	2.194
10829	37	4.658	2.555
10830	18	8.497	2.030
10831	47	10.038	2.292
10832	46	10.662	2.866
10833	54	11.632	2.534
10834	38	12.577	2.965
10835	35	15.092	2.505
10836	19	16.092	2.135
10837	17	17.822	2.670
10838	32	22.646	2.705
10839	40	25.241	2.695
10840	52	5.626	3.925
10841	18	8.315	3.195
10842	40	10.515	3.895
10843	41	11.465	3.665
10844	47	12.187	3.61
10845	54	12.714	3.805
10846	29	12.768	3.14
10847	24	12.926	3.56
10848	41	14.810	3.25
10849	46	15.726	3.91
10850	38	17.254	3.39
10851	28	20.167	3.20
10852	40	23.856	3.60
10853	48	1.619	4.10
10854	19	1.855	4.81
10855	34	5.514	4.52



R.A. 5<sup>h</sup> 56<sup>m</sup>

Plate 383; 1914 Dec. 19.

Provisional Constants.

$$\begin{matrix} A & B & C \\ -01766 & +00742 & -1138 \end{matrix}$$

$$\begin{matrix} D & E & F \\ -00730 & -01799 & +5023 \end{matrix}$$

$$\text{Mag.} = 17.5 - 1.09\sqrt{d}$$

No.	d	x	y
11078	24	14.310	21.022
11079	35	16.944	21.900
11080	22	18.278	21.220
11081	14	18.338	21.262
11082*	58	18.688	21.812
11083	49	19.120	21.266
11084	23	19.976	21.115
11085	12	20.681	21.335
11086	28	21.956	21.441
11087	38	24.980	21.268
11088	35	0.036	22.964
11089	37	1.480	22.247
11090	43	6.364	22.450
11091	53	6.872	22.622
11092	34	7.795	22.900
11093	52	9.280	22.774
11094	37	11.539	22.477
11095	46	13.216	22.200
11096	40	14.400	22.246
11097*	71	15.008	22.624
11098	11	18.340	22.832
11099*	70	18.542	22.562
11100	24	19.136	22.780
11101	36	21.376	22.332
11102	13	22.168	22.518
11103	22	22.722	22.294
11104	35	23.512	22.998
11105	28	24.170	22.004
11106	55	24.442	22.762
11107	36	6.296	23.390
11108	47	7.284	23.044
11109	15	10.342	23.802
11110	33	10.874	23.243
11111	24	11.480	24.143
11112	46	13.730	23.735
11113	36	13.758	23.902
11114	22	16.872	23.324
11115	50	17.846	23.368
11116	35	20.270	23.232
11117	13	20.784	23.928
11118*	78	23.188	23.780
11119	35	23.607	23.274
11120	22	23.902	23.195
11121*	76	23.978	23.226
11122	32	24.626	23.423
11123	36	25.886	23.339
11124	47	0.276	24.982
11125	67	1.518	24.182
11126*	72	6.965	24.716
11127	35	7.201	24.700
11128*	84	10.118	24.245
11129	31	12.179	24.815
11130	42	15.470	24.906
11131	35	15.476	24.061
11132	37	17.846	24.194
11133	17	18.951	24.906
11134	34	20.018	24.205
11135	64	21.392	24.255
11136	36	23.685	24.540
11137	12	1.459	25.196
11138	56	5.157	25.982
11139	35	13.812	25.896
11140*	63	14.858	25.757
11141	15	19.080	25.243
11142	52	22.076	25.625
11143*	65	22.118	25.314
11144	30	23.400	25.306
11145	33	23.654	25.637
11146	44	24.100	25.646
11147	27	24.614	25.506
11206	27	5.744	5.377
11207	32	11.374	5.081
11208	15	12.612	5.943
11209	56	13.624	5.214
11210	45	25.706	5.264
11211	40	2.888	6.976
11212	42	5.560	6.747
11213	28	5.958	6.276
11214	26	7.784	6.930
11215	30	8.194	6.479
11216	28	10.470	6.952
11217	29	15.224	6.480
11218	44	15.661	6.059
11219*	78	15.827	6.084
11220	18	16.974	6.210
11221	14	18.754	6.382
11222	20	19.923	6.146
11223	44	20.506	6.512
11224	21	21.284	6.164
11225	25	24.481	6.046
11226	34	24.900	6.373
11227	132	25.506	6.956
11228	47	0.500	7.352
11229	56	1.473	7.770
11230	18	3.887	7.770
11231	35	6.031	7.476
11232	13	8.454	7.662
11233	39	8.954	7.220
11234	16	9.658	7.743
11235	55	11.365	7.610
11236	36	17.046	7.140
11237	20	19.922	7.922
11238	16	21.598	7.736
11239	12	23.286	7.054
11240	39	1.878	8.908
11241	24	2.207	8.888
11242	32	3.588	8.954
11243	40	8.596	8.034
11244	42	11.424	8.702
11245	36	13.496	8.417
11246	30	20.426	8.032
11247	38	23.869	8.390
11248*	58	24.410	8.520
11249	28	0.408	9.824
11250	54	3.897	9.905
11251	54	6.344	9.673
11252	40	9.087	9.410
11253	30	9.125	9.780
11254	38	11.393	9.040
11255	34	11.606	9.968
11256	40	16.712	9.947
11257	35	20.098	9.812
11258	42	22.398	9.254
11259*	76	0.726	10.218
11260	46	4.052	10.535
11261	31	5.722	10.782
11262	32	5.801	10.392
11263	16	6.225	10.285
11264	52	8.434	10.294
11265*	49	10.235	10.726
11266*	80	10.409	10.746
11267	36	11.254	10.812
11268	36	11.848	10.464
11269	42	15.688	10.520
11270	42	15.928	10.273
11271*	58	17.144	10.554
11272	24	18.555	10.424
11273	32	22.497	10.557
11274	30	22.651	10.108
11275	56	23.659	10.347
11276	22	0.535	11.472
11277	35	0.866	11.921
11278	34	2.677	11.318
11279	36	4.160	11.964
11280	22	4.275	11.320
11281	32	5.966	11.566
11282	20	6.767	11.488
11283	59	11.694	11.804
11284	28	11.799	11.386
11285	34	14.484	11.800
11286	40	17.956	11.655
11287	35	20.358	11.542
11288	38	21.469	11.450
11289	36	23.243	11.090
11290*	55	23.426	11.623
11291	12	23.972	11.482
11292	17	2.825	12.117
11293	49	2.925	12.488
11294	24	3.555	12.096
11295	18	8.792	12.345
11296	46	8.800	12.893
11297	50	8.876	12.590
11298	36	10.033	12.501
11299	56	15.462	12.795
11300	28	17.438	12.296
11301	31	18.714	12.910
11302	46	18.766	12.618
11303	40	19.056	12.166
11304	53	19.806	12.237
11305	24	22.522	12.791
11306	29	22.586	12.735
11307	36	23.780	12.647
11308	36	24.053	12.756
11309	49	0.015	13.221
11310	36	0.384	13.295
11311	12	0.639	13.156
11312	42	2.212	13.046
11313	34	4.056	13.395
11314	24	4.314	13.837
11315	35	8.624	13.798
11316	34	9.974	13.368
11317	39	13.835	13.106
11318	31	13.943	13.442
11319	44	15.798	13.376
11320	22	19.616	13.898
11321	39	24.581	13.949
11322	46	0.894	14.014
11323	21	4.143	14.598
11324*	57	4.710	14.760
11325	37	4.750	14.775
11326	42	8.287	14.775
11327*	60	9.916	14.208
11328*	54	10.950	14.213
11329	24	16.313	14.820
11330	57	17.185	14.599
11331	56	18.368	14.133
11332	17	19.178	14.986
11333	28	22.406	14.040
11334	34	23.244	14.396
11335	28	23.974	14.084
11336	38	24.365	14.453
11337	38	7.906	15.396
11338	30	11.482	15.194
11339	30	17.894	15.490
11340	35	22.258	15.255
11341*	78	1.128	16.281
11342*	56	1.590	16.770
11343	24	5.027	16.442
11344	40	5.714	16.824
11345	36	7.468	16.719
11346	13	13.231	16.340
11347*	58	16.222	16.719
11348	43	18.186	16.190
11349	16	20.396	16.185
11350	56	0.216	17.208
11351	58	5.854	17.928
11352	22	7.033	17.458
11353	26	9.638	17.024
11354	36	12.716	17.770
11355	20	13.565	17.055
11356	42	14.050	17.572
11357	47	14.443	17.028
11358	34	15.514	17.105
11359	18	18.740	17.961
11360	46	19.577	17.794
11361	12	21.021	17.499
11362	16	22.275	17.566
11363	21	23.027	17.259
11364	50	23.104	17.629
11365	24	25.087	17.009
11366	42	0.373	18.938
11367	56	1.934	18.252
11368	46	4.534	18.823
11369	24	5.302	18.942
11370	52	7.076	18.407
11371	44	12.366	18.797
11372	31	15.623	18.210
11373	23	18.381	18.418
11374	43	19.373	18.994
11375	13	20.330	18.946
11376	34	21.876	18.394
11377	25	22.402	18.699
11378	51	3.366	19.398
11379	15	4.170	19.320
11380	26	6.976	19.478
11381	44	8.484	19.728
11382	27	10.224	19.619
11383*	67	15.005	19.146
11384	30	2.950	20.666
11385	39	4.564	20.917
11386	27	7.206	20.843
11387	45	13.274	20.752
11388	15	13.964	20.008
11389	16	14.205	20.314
11390	17	16.734	20.712
11391	13	17.928	20.516
11392	56	19.329	20.097
11393	41	21.600	20.816
11394	30	24.557	20.304
11395	22	0.682	21.379
11396	40	2.590	21.318
11397	53	6.331	21.204
11398	49	7.284	21.126
11399	42	8.114	21.606
11400	32	8.452	21.316
11401	14	8.766	21.250
11402	16	12.314	21.912
11403	32	12.482	21.900
11404	38	12.796	21.694
11405	24	16.649	21.421
11406	36	18.900	21.116
11407	37	19.724	21.951
11408	36	25.923	21



11428	28	1.231	23.334	11502	19	0.481	0.781	11576*	76	7.598	7.280	11650	33	0.036	12.770	11724	24	12.266	17.726
11429	24	1.527	23.256	11503	27	7.976	0.745	11577	32	10.086	7.294	11651	22	1.227	12.672	11725	36	13.311	17.288
11430*	71	1.602	23.284	11504	29	13.676	0.759	11578	20	13.868	7.832	11652	30	1.500	12.776	11726	25	14.794	17.138
11431	40	1.796	23.058	11505	46	18.912	0.176	11579	21	14.262	7.959	11653*	74	5.324	12.530	11727	13	14.850	17.444
11432	24	1.920	23.536	11506	53	25.615	0.466	11580	23	14.704	7.813	11654	13	6.798	12.267	11728	33	14.972	17.164
11433	43	2.254	23.474	11507	36	0.946	1.681	11581	23	16.886	7.224	11655	23	9.387	12.926	11729	27	15.186	17.986
11434	38	3.515	23.376	11508	12	1.412	1.649	11582	36	17.090	7.280	11656	18	9.754	12.280	11730	19	15.682	17.090
11435	42	5.233	23.544	11509	24	7.820	1.864	11583	19	18.802	7.682	11657	18	11.227	12.440	11731	19	16.175	17.542
11436*	60	9.658	23.944	11510	30	9.192	1.534	11584*	57	20.892	7.956	11658	32	11.894	12.347	11732	31	16.985	17.000
11437	26	14.386	23.252	11511	29	14.914	1.076	11585	21	20.995	7.656	11659	20	13.443	12.994	11733	47	17.208	17.678
11438	48	17.351	23.152	11512	56	16.361	1.956	11586	22	22.500	7.764	11660*	40	15.156	12.952	11734	28	19.364	17.888
11439*	64	18.650	23.158	11513*	76	24.398	1.655	11587	37	22.720	7.502	11661	10	20.306	12.548	11735	22	19.878	17.556
11440	18	21.282	23.860	11514	21	6.418	2.400	11588	46	22.736	7.090	11662	23	23.750	12.742	11736	22	22.376	17.047
11441	28	24.648	23.360	11515	35	7.060	2.670	11589	27	1.286	8.412	11663	36	24.728	12.268	11737	22	23.458	17.534
11442	28	24.810	23.532	11516	32	9.492	2.283	11590*	49	1.828	8.540	11664	29	2.038	13.965	11738	29	24.774	17.462
11443	40	1.325	24.602	11517	42	12.530	2.618	11591	11	3.804	8.850	11665	40	8.407	13.726	11739	33	3.873	18.476
11444*	60	6.806	24.975	11518	29	13.986	2.695	11592	28	5.668	8.838	11666	36	13.507	13.692	11740	33	4.530	18.416
11445	34	7.905	24.990	11519	33	17.799	2.680	11593	18	7.147	8.578	11667	33	17.074	13.245	11741	32	5.612	18.316
11446	30	10.344	24.044	11520	27	17.964	2.896	11594	32	13.576	8.326	11668	17	18.802	13.662	11742	26	6.358	18.796
11447	34	10.386	24.268	11521	56	20.840	2.209	11595	40	16.592	8.060	11669	33	21.226	13.106	11743	25	8.446	18.393
11448	17	15.020	24.294	11522	15	21.841	2.289	11596	41	17.414	8.060	11670	14	23.938	13.486	11744	30	9.918	18.666
11449	24	18.787	24.062	11523	55	23.580	2.752	11597	32	19.692	8.962	11671	37	25.986	13.226	11745	36	10.254	18.076
11450	34	18.910	24.662	11524	29	25.352	2.664	11598	36	19.964	8.103	11672	24	0.702	14.424	11746	20	10.649	18.886
11451	32	20.180	24.011	11525	24	25.726	2.134	11599	20	6.437	9.397	11673	24	1.432	14.106	11747	21	11.468	18.420
11452	33	21.515	24.650	11526*	38	0.644	3.048	11600	29	6.743	9.167	11674	28	1.826	14.474	11748	18	11.554	18.954
11453	30	23.850	24.002	11527*	37	4.281	3.016	11601	30	8.076	9.401	11675	17	5.326	14.564	11749	19	12.304	18.970
11454	34	24.089	24.310	11528*	65	5.274	3.997	11602	19	8.329	9.707	11676	35	6.131	14.457	11750	45	16.074	18.126
11455	96	25.106	24.326	11529	37	8.906	3.274	11603	23	8.376	9.836	11677	30	7.396	14.188	11751	22	18.846	18.896
11456	27	1.045	25.374	11530	16	10.258	3.822	11604	23	8.435	9.086	11678	22	8.017	14.979	11752	18	19.912	18.382
11457	33	1.304	25.699	11531	18	13.636	3.124	11605	40	9.016	9.699	11679	15	11.383	14.620	11753	24	19.972	18.257
11458	44	1.751	25.704	11532*	60	15.370	3.878	11606	24	10.030	9.166	11680	13	12.796	14.899	11754	24	21.549	18.876
11459	39	3.942	25.206	11533*	59	17.944	3.978	11607	29	10.879	9.555	11681	20	13.445	14.142	11755*	60	21.853	18.023
11460	18	4.606	25.610	11534	35	21.984	3.372	11608	17	11.214	9.342	11682	23	14.326	14.506	11756	33	25.596	18.519
11461*	96	4.890	25.810	11535	36	22.812	3.572	11609	17	13.314	9.916	11683	30	14.995	14.184	11757*	42	6.556	19.814
11462	32	5.458	25.806	11536	36	22.906	3.580	11610	26	14.846	9.042	11684	32	17.643	14.430	11758	34	8.028	19.807
11463	21	5.518	25.052	11537	15	24.275	3.780	11611	23	15.707	9.128	11685	27	19.374	14.146	11759	36	8.416	19.504
11464	52	8.814	25.224	11538	36	0.122	4.731	11612	35	22.193	9.098	11686	28	20.314	14.966	11760	25	8.531	19.578
11465	37	8.879	25.136	11539*	60	7.700	4.255	11613	26	22.290	9.776	11687	36	24.005	14.934	11761	22	8.688	19.718
11466	18	9.326	25.889	11540	28	9.386	4.222	11614	33	25.134	9.234	11688	34	4.401	15.039	11762	19	9.838	19.208
11467	25	11.800	25.840	11541	24	10.251	4.557	11615	40	1.092	10.374	11689*	49	5.050	15.638	11763	42	10.736	19.226
11468	36	13.400	25.914	11542	20	11.371	4.565	11616	33	8.884	10.051	11690	26	6.120	15.410	11764	18	15.961	19.060
11469	40	13.950	25.866	11543	30	11.842	4.556	11617	32	9.456	10.756	11691	15	6.790	15.027	11765	26	16.374	19.060
11470	33	14.420	25.262	11544	24	13.696	4.236	11618	12	11.581	10.744	11692	20	8.304	15.318	11766	39	16.512	19.766
11471	26	15.310	25.965	11545	21	14.815	4.378	11619	21	13.298	10.940	11693	15	9.612	15.446	11767	35	17.224	19.415
11472	39	15.926	25.850	11546*	36	21.485	4.628	11620	24	13.430	10.186	11694	19	10.538	15.187	11768	21	17.938	19.466
11473	16	16.546	25.599	11547	38	22.761	4.035	11621	30	14.392	10.570	11695	17	10.634	15.554	11769*	48	18.408	19.393
11474*	67	16.623	25.666	11548	58	23.814	4.660	11622	16	15.219	10.873	11696	36	12.348	15.616	11770	13	19.136	19.866
11475	38	16.932	25.936	11549	32	25.872	4.096	11623	22	18.184	10.900	11697	33	12.962	15.662	11771	52	21.090	19.580
11476	44	21.520	25.386	11550	28	3.104	5.277	11624	34	18.453	10.122	11698	29	13.327	15.748	11772	35	21.100	19.862
11477	27	21.708	25.636	11551	24	6.042	5.956	11625	23	18.826	10.096	11699	31	14.758	15.679	11773	13	24.384	19.186
11478	82	25.292	25.753	11552	20	9.295	5.542	11626	23	19.124	10.077	11700	20	14.900	15.625	11774	36	25.175	19.572
				11553	30	12.632	5.235	11627	26	20.749	10.063	11701*	48	18.431	15.285	11775	21	2.056	20.325
				11554	22	16.425	5.282	11628	24	21.064	10.664	11702	24	19.538	15.238	11776	30	3.781	20.758
				11555	38	19.208	5.298	11629*	73	21.116	10.766	11703	49	25.119	15.574	11777	10	6.775	20.977
				11556	29	1.884	6.068	11630	26	22.304	10.894	11704	33	25.332	15.158	11778	31	6.988	20.722
				11557	30	1.902	6.459	11631*	37	24.594	10.534	11705	18	6.032	16.543	11779	25	7.373	20.478
				11558	29	2.307	6.392	11632	35	25.647	10.344	11706	18	6.860	16.116	11780	33	7.705	20.916
				11559*	120	2.905	6.966	11633	22	0.680	11.115	11707	13	8.050	16.038	11781	15	7.751	20.790
				11560	26	5.188	6.392	11634*	43	0.865	11.646	11708	34	11.134	16.576	11782*	49	10.693	20.086
				11561*	54	7.665	6.460	11635	21	4.216	11.131	11709*	36	11.214	16.380	11783	17	10.734	20.828
				11562	22	14.674	6.325	11636*	53	7.422	11.744	11710*	46	11.322	16.892	11784	17	10.846	20.762
				11563	20	14.718	6.852	11637	29	8.984	11.853	11711*	40	12.978	16.866	11785	26	11.619	20.890
				11564	26	15.632	6.236	11638*	43	10.634	11.428	11712	16	14.226	16.097	11786	35	12.736	20.964
				11565	32	16.964	6.858	11639	16	12.716	11.222	11713*	80	15.176					



11798	32	14.284	21.780	<b>R.A. 6<sup>h</sup> 12<sup>m</sup></b> Plate 400; 1914 Dec. 22. <i>Provisional Constants.</i> A      B      C -0.1769 + 0.0030 - 0.302 D      E      F -0.0014 - 0.1788 + 3.553 Mag. = 17.0 - 1.09√d	11956	21	20.922	3.187	12030*	105	11.812	8.214	12104	16	17.419	12.556
11799	28	15.032	21.193		11957	8	22.432	3.745	12031	11	12.387	8.069	12105	17	17.471	12.090
11800	31	16.134	21.547		11958	28	0.139	4.137	12032	8	13.070	8.040	12106	12	18.093	12.017
11801	36	16.335	21.869		11959	40	1.190	4.756	12033	12	14.050	8.058	12107	12	18.889	12.840
11802	22	18.274	21.064		11960	14	3.252	4.170	12034	18	14.066	8.096	12108	25	20.248	12.367
11803	22	18.356	21.946		11961	8	3.332	4.576	12035	20	15.114	8.452	12109	20	21.874	12.786
11804	27	19.942	21.765		11962	10	3.918	4.593	12036	13	18.388	8.062	12110	8	23.470	12.969
11805	11	23.086	21.143		11963	23	4.708	4.695	12037	10	20.190	8.120	12111	19	24.237	12.396
11806	100	25.056	21.757		11964	16	7.528	4.336	12038	67	25.998	8.810	12112	33	25.295	12.775
11807	25	25.184	21.892		11965	8	10.609	4.416	12039	24	2.540	9.318	12113	72	25.350	12.390
11808	27	0.282	22.592		11966	12	10.690	4.103	12040	26	4.359	9.466	12114	22	3.420	13.304
11809	30	1.078	22.512		11967	8	11.463	4.231	12041	21	6.175	9.932	12115	20	6.082	13.755
11810	25	3.206	22.216		11968*	60	11.825	4.060	12042	12	7.411	9.043	12116	36	6.262	13.528
11811	36	3.337	22.309		11969	11	12.459	4.701	12043	10	8.334	9.473	12117	10	7.258	13.688
11812	12	4.555	22.547		11970	20	16.606	4.804	12044	21	9.152	9.902	12118	15	8.992	13.730
11813	24	5.868	22.326		11971	11	18.746	4.006	12045	15	10.772	9.928	12119	22	9.264	13.576
11814	25	7.970	22.344		11972*	58	20.600	4.862	12046	20	11.150	9.978	12120*	62	11.302	13.074
11815	20	8.976	22.915		11973	8	22.282	4.646	12047	18	13.265	9.388	12121	9	11.306	13.916
11816*	56	9.586	22.572		11974	8	5.778	5.538	12048	24	14.162	9.984	12122	11	12.270	13.186
11817	12	10.708	22.351		11975	10	5.827	5.436	12049	15	15.326	9.543	12123	19	14.817	13.330
11818	27	12.211	22.142		11976	29	6.152	5.291	12050	29	16.222	9.710	12124	13	16.790	13.066
11819	24	13.554	22.034		11977*	65	8.086	5.948	12051*	50	16.590	9.766	12125	24	16.900	13.518
11820	14	14.566	22.622		11978	14	8.302	5.134	12052	9	16.951	9.792	12126	22	17.911	13.172
11821	32	16.348	22.108		11979	8	10.606	5.926	12053	38	23.670	9.290	12127	12	18.350	13.075
11822	18	16.972	22.904		11980	18	12.004	5.030	12054	11	24.108	9.410	12128	8	19.364	13.134
11823	24	20.955	22.982		11981	34	13.452	5.751	12055*	40	2.008	10.622	12129	12	19.608	13.098
11824	23	21.956	22.114		11982	39	15.279	5.455	12056	29	3.060	10.424	12130	8	3.550	14.870
11825	28	8.674	23.872		11983	39	17.144	5.031	12057	11	7.026	10.812	12131	11	6.618	14.918
11826	17	10.260	23.346		11984	12	17.898	5.147	12058	8	9.230	10.475	12132	17	7.487	14.316
11827	44	11.554	23.487		11985*	62	19.230	5.984	12059	8	9.569	10.072	12133	20	8.212	14.176
11828	21	12.588	23.155		11986	16	19.886	5.013	12060	35	9.803	10.174	12134*	27	11.518	14.074
11829	46	12.724	23.075		11987	8	22.434	5.627	12061	14	9.979	10.776	12135	9	11.892	14.755
11830	22	16.555	23.514		11988	25	25.741	5.402	12062	17	10.862	10.234	12136	15	12.041	14.828
11831	23	17.473	23.846		11989	10	3.658	6.114	12063	13	12.596	10.916	12137	35	13.136	14.574
11832	22	18.644	23.214		11990	39	4.925	6.654	12064	10	12.694	10.184	12138	9	14.139	14.636
11833	23	1.386	24.026		11991	11	8.530	6.125	12065*	88	16.264	10.506	12139	18	15.703	14.794
11834	17	1.624	24.328		11992	12	9.886	6.860	12066	17	16.660	10.450	12140	10	21.392	14.354
11835*	86	2.634	24.340		11993	16	9.969	6.363	12067	14	16.791	10.451	12141	14	23.952	14.620
11836	26	5.549	24.128		11994	8	14.130	6.868	12068*	52	17.762	10.700	12142	34	1.445	15.024
11837	35	7.116	24.704		11995	19	16.922	6.135	12069	10	18.207	10.076	12143*	41	2.563	15.659
11838	36	7.420	24.866		11996	10	17.656	6.862	12070	17	22.904	10.927	12144	25	2.774	15.243
11839	18	8.392	24.461		11997	13	17.658	6.244	12071	8	23.508	10.059	12145	12	3.620	15.785
11840	27	9.424	24.416		11998	16	18.430	6.632	12072	20	25.946	10.850	12146	9	5.156	15.930
11841	26	12.472	24.346		11999	18	21.002	6.331	12073	26	25.986	10.178	12147	8	15.830	15.675
11842	24	12.502	24.056		12000	12	23.958	6.425	12074	8	0.132	11.978	12148	12	16.580	15.002
11843	27	12.884	24.648		12001	8	24.345	6.976	12075	8	2.748	11.824	12149*	56	17.306	15.956
11844	34	13.148	24.285		12002	8	25.312	6.565	12076*	43	3.146	11.580	12150	12	18.390	15.369
11845	21	14.369	24.420		12003	29	25.634	6.104	12077	13	3.990	11.264	12151	23	20.552	15.018
11846	40	14.384	24.395		12004	30	0.117	7.602	12078	23	5.088	11.498	12152	8	21.276	15.808
11847	21	17.102	24.235		12005	37	0.126	7.191	12079	11	6.482	11.510	12153*	46	23.880	15.894
11848	36	21.098	24.188		12006	8	2.380	7.824	12080	13	8.080	11.218	12154	56	25.644	15.275
11849	34	24.148	24.623		12007	9	3.316	7.630	12081	9	8.100	11.580	12155	17	4.110	16.904
11850	38	25.373	24.135		12008	9	4.235	7.054	12082	8	10.447	11.968	12156	12	4.778	16.501
11851*	80	2.826	25.770		12009	15	5.775	7.060	12083	13	13.726	11.516	12157	16	8.930	16.874
11852*	75	6.605	25.422		12010	14	5.974	7.266	12084	19	15.565	11.827	12158	9	9.153	16.846
11853*	58	6.614	25.312		12011	30	9.184	7.030	12085	8	16.400	11.858	12159	11	11.256	16.681
11854	44	9.693	25.635		12012	12	10.620	7.914	12086	9	19.655	11.694	12160	8	14.026	16.418
11855	35	13.844	25.200		12013	12	11.460	7.210	12087	8	21.210	11.644	12161	20	16.710	16.155
11856	33	19.674	25.518		12014	18	13.278	7.364	12088	19	24.683	11.897	12162	21	17.035	16.160
11857	31	21.136	25.364		12015	36	14.270	7.085	12089	13	24.718	11.412	12163	10	17.545	16.976
11858	36	22.217	25.894		12016	8	14.873	7.465	12090	8	25.092	11.144	12164	13	18.232	16.688
					12017	36	15.482	7.678	12091	8	25.901	11.198	12165	9	25.386	16.503
					12018	37	18.974	7.446	12092	10	1.180	12.836	12166	16	2.234	17.550
					12019	30	20.142	7.687	12093	21	2.155	12.356	12167	13	4.451	17.758
					12020	8	20.157	7.030	12094	24	6.446	12.942	12168	12	6.620	17.018
					12021	9	24.776	7.094	12095	8	7.092	12.932	12169	13	7.331	17.614
					12022	12	25.950	7.680	12096	10	10.324	12.639	12170	16	8.800	17.741
					12023	8	1.852	8.398	12097	12	10.802	12.660	12171	10	10.911	17.719
					12024	9	4.260	8.364	12098	14	11.140	12.641	12172	8	11.222	17.478
					12025	21	6.326	8.551	12099	12	12.580	12.950	12173	10	12.008	17.436
					12026*	52	6.951	8.330	12100	25	12.619	12.101	12174	38	13.702	17.802
					12027	17	9.913	8.667	12101	33	13.200	12.086	12175	12	20.425	17.928
					12028	13	10.941	8.380	12102	14	13.987	12.256	12176	10	20.845	17.572
					12029	8	11.455	8.350	12103*	58	15.501	12.702	12177	24	21.472	17.404



12178	8	22°110	17°220	12252	12	16°291	22°085	12306	32	14°195	0°848	12380	17	11°751	5°630	12454	10	22°267	8°184
12179	8	24°400	17°036	12253	20	16°811	22°262	12307	10	20°064	0°265	12381	22	15°589	5°554	12455	28	23°406	8°370
12180	17	3°066	18°600	12254	25	16°842	22°837	12308	27	21°166	0°075	12382*	55	15°596	5°104	12456	19	23°595	8°448
12181	8	5°606	18°555	12255	20	17°420	22°930	12309	21	23°465	0°083	12383	21	15°834	5°878	12457	10	23°609	8°351
12182*	60	6°752	18°424	12256	26	18°636	22°424	12310	47	0°444	1°040	12384	19	17°844	5°968	12458	34	24°934	8°126
12183*	53	7°054	18°184	12257	20	18°698	22°700	12311	23	0°817	1°405	12385	14	19°894	5°758	12459	22	1°016	9°984
12184*	40	7°076	18°452	12258	12	19°998	22°863	12312	28	1°009	1°886	12386	34	21°716	5°914	12460	37	1°162	9°216
12185	24	9°598	18°624	12259	14	20°158	22°822	12313	18	1°422	1°098	12387	16	24°056	5°130	12461	17	1°612	9°326
12186	9	9°986	18°681	12260	22	23°302	22°567	12314	14	6°535	1°084	12388	44	25°577	5°265	12462	17	2°146	9°065
12187	13	11°751	18°662	12261	60	25°624	22°450	12315	33	11°836	1°012	12389	23	1°402	6°344	12463	20	4°266	9°365
12188	21	12°810	18°328	12262	8	4°246	23°793	12316	41	14°744	1°994	12390	11	1°806	6°888	12464	21	4°952	9°456
12189*	41	13°046	18°680	12263	18	4°748	23°312	12317	21	19°644	1°516	12391	18	2°234	6°998	12465	25	6°735	9°325
12190	13	14°254	18°483	12264	19	7°010	23°330	12318	40	20°532	1°722	12392	22	2°398	6°913	12466*	60	7°010	9°252
12191	14	14°570	18°067	12265	8	7°266	23°721	12319	20	1°464	2°354	12393	18	2°766	6°458	12467	21	8°206	9°958
12192	15	17°056	18°910	12266	12	9°060	23°539	12320*	50	1°486	2°182	12394	11	3°344	6°397	12468	23	8°884	9°665
12193	35	17°456	18°664	12267	23	9°372	23°957	12321*	55	1°737	2°370	12395	38	4°804	6°270	12469	10	10°834	9°186
12194	11	19°391	18°735	12268*	64	12°384	23°795	12322	20	2°595	2°066	12396	13	5°354	6°224	12470	13	10°908	9°754
12195	29	20°841	18°150	12269	17	15°264	23°664	12323	30	2°614	2°500	12397	16	5°892	6°564	12471*	44	12°766	9°796
12196	18	21°814	18°672	12270	16	16°670	23°456	12324	25	3°113	2°016	12398	19	6°064	6°466	12472	19	16°236	9°352
12197*	80	21°934	18°840	12271	29	20°709	23°872	12325	8	4°531	2°078	12399	24	6°409	6°230	12473	16	16°266	9°618
12198	23	22°760	18°110	12272*	32	24°756	23°368	12326	38	5°598	2°866	12400	21	7°175	6°206	12474	24	16°465	9°444
12199	11	0°570	19°399	12273	12	25°750	23°779	12327	11	6°140	2°741	12401	25	7°826	6°626	12475*	52	17°014	9°106
12200	8	1°860	19°273	12274	81	25°783	23°912	12328	18	11°175	2°964	12402	15	8°708	6°618	12476	48	18°472	9°150
12201	16	2°651	19°656	12275	24	1°660	24°716	12329	62	13°553	2°574	12403	21	10°184	6°344	12477	14	18°908	9°457
12202	16	3°942	19°493	12276	30	2°880	24°218	12330	40	13°894	2°542	12404	27	10°200	6°283	12478	15	19°202	9°813
12203	21	8°080	19°645	12277	20	7°966	24°158	12331	39	13°894	2°672	12405*	84	10°678	6°080	12479*	57	19°360	9°086
12204	8	9°976	19°700	12278	17	10°379	24°283	12332	23	14°273	2°992	12406	20	10°815	6°257	12480	42	23°760	9°354
12205	39	10°952	19°273	12279	8	10°444	24°624	12333	24	15°766	2°227	12407	9	15°824	6°838	12481	20	24°747	9°035
12206*	41	11°930	19°471	12280	40	11°930	24°231	12334*	60	17°296	2°814	12408	26	16°265	6°925	12482	21	0°426	10°865
12207	33	20°609	19°337	12281	34	17°642	24°768	12335	30	17°855	2°962	12409	21	17°944	6°772	12483	8	2°484	10°245
12208	12	20°925	19°850	12282	8	21°480	24°376	12336	14	18°764	2°800	12410	23	18°337	6°400	12484	26	3°467	10°734
12209*	56	22°176	19°418	12283	11	23°458	24°502	12337*	69	22°914	2°005	12411	14	19°433	6°806	12485	34	3°495	10°064
12210	8	22°809	19°315	12284	33	24°404	24°536	12338	13	25°326	2°487	12412	24	20°474	6°264	12486*	78	4°011	10°176
12211	13	25°098	19°430	12285	51	25°205	24°306	12339	62	25°646	2°252	12413	8	23°404	6°382	12487	17	4°222	10°723
12212	36	25°214	19°828	12286*	68	7°954	25°529	12340	16	1°464	3°100	12414	37	24°526	6°606	12488	17	5°694	10°496
12213	30	25°954	19°850	12287	10	12°795	25°595	12341*	65	3°922	3°086	12415	10	25°924	6°910	12489	12	8°439	10°234
12214	8	0°266	20°164	12288	16	13°898	25°549	12342	27	6°618	3°963	12416	22	3°423	7°564	12490	15	11°162	10°876
12215	8	1°223	20°284	12289	16	14°251	25°356	12343	25	7°443	3°206	12417	27	3°620	7°688	12491	12	15°749	10°974
12216	19	1°567	20°240	12290	13	18°414	25°236	12344	22	7°662	3°888	12418	23	3°762	7°166	12492	18	16°168	10°232
12217	19	3°788	20°540	12291	13	18°677	25°335	12345	25	8°825	3°895	12419	25	5°016	7°106	12493	15	16°180	10°146
12218	23	4°706	20°237	12292	8	22°334	25°519	12346	20	10°786	3°193	12420	16	5°738	7°604	12494	15	16°374	10°310
12219	8	5°288	20°158	12293	11	23°168	25°496	12347	21	10°856	3°067	12421	22	5°992	7°357	12495	9	16°919	10°383
12220	9	6°182	20°221	12294	23	24°328	25°827	12348	35	12°004	3°706	12422	46	6°251	7°802	12496	17	17°230	10°293
12221	8	8°710	20°781					12349	55	12°114	3°884	12423*	57	6°265	7°728	12497	9	19°386	10°218
12222	19	14°840	20°270					12350	33	12°435	3°476	12424	20	6°285	7°387	12498	12	0°772	11°063
12223	17	15°354	20°717					12351*	87	12°439	3°185	12425	26	6°793	7°300	12499	17	0°935	11°026
12224	27	16°048	20°982					12352*	58	12°494	3°183	12426	22	9°556	7°314	12500	26	2°220	11°804
12225	10	20°626	20°820					12353	15	13°092	3°816	12427	14	10°708	7°194	12501	21	2°246	11°317
12226*	62	22°791	20°696					12354	32	14°586	3°186	12428	25	11°203	7°702	12502	13	2°622	11°044
12227*	100	2°534	21°842					12355	13	14°618	3°102	12429	14	11°573	7°228	12503	15	3°426	11°084
12228	17	2°673	21°977					12356	18	19°496	3°214	12430	23	12°066	7°721	12504	14	5°086	11°061
12229	13	4°840	21°752					12357	16	21°272	3°643	12431	21	13°284	7°056	12505	33	5°349	11°544
12230	23	6°382	21°959					12358	17	4°054	4°254	12432	22	13°342	7°200	12506	16	5°626	11°523
12231	18	7°710	21°932					12359	18	5°719	4°675	12433	12	15°204	7°962	12507	32	6°266	11°556
12232	35	8°204	21°237					12360	23	6°005	4°742	12434	15	18°498	7°456	12508	43	11°104	11°688
12233	8	9°671	21°914					12361	23	6°670	4°310	12435	19	18°554	7°657	12509	12	13°576	11°135
12234	20	10°810	21°738					12362	21	7°092	4°176	12436*	62	18°635	7°539	12510	20	14°084	11°806
12235	16	12°088	21°481					12363	19	7°784	4°466	12437	16	19°274	7°326	12511	20	14°635	11°260
12236	8	16°658	21°904					12364	13	7°904	4°506	12438	17	21°963	7°224	12512	38	16°696	11°640
12237	9	16°764	21°151					12365	17	10°497	4°550	12439	16	25°243	7°974	12513*	44	17°006	11°156
12238	10	17°030	21°979					12366	25	10°960	4°222	12440	15	3°192	8°164	12514	20	18°958	11°212
12239	41	17°600	21°200					12367	32	12°963	4°846	12441*	68	3°476	8°698	12515	10	19°446	11°654
12240	12	18°780	21°250					12368	43	17°044	4°107	12442	21	6°405	8°872	12516	21	19°863	11°450
12241	15	22°066	21°729					12369	25	19°614	4°015	12443	24	6°675	8°019	12517	34	21°914	11°946
12242	12	24°867	21°366					12370	25	20°796	4°823	12444	25	8°730	8°036	12518	21	22°438	11°564
12243	26	3°806	22°314																



12528	22	10.087	12.264	12602	9	23.447	15.330	12676	25	2.763	19.330	12750	25	21.676	22.812
12529	34	10.534	12.894	12603*	41	24.065	15.687	12677	41	2.880	19.728	12751	24	22.141	22.365
12530	26	12.387	12.928	12604	14	24.440	15.201	12678	11	3.588	19.642	12752	9	25.280	22.719
12531	11	12.777	12.460	12605	16	1.472	16.702	12679	38	3.627	19.738	12753*	47	2.485	23.276
12532	40	15.336	12.988	12606	14	2.017	16.944	12680	17	5.713	19.722	12754	15	3.324	23.812
12533	16	15.430	12.415	12607	21	2.778	16.096	12681	19	7.828	19.624	12755	38	3.492	23.668
12534	23	16.018	12.325	12608	21	3.002	16.400	12682	17	8.225	19.650	12756*	73	3.513	23.796
12535	9	16.986	12.758	12609	11	4.430	16.744	12683	37	9.542	19.329	12757	39	7.932	23.114
12536	23	17.566	12.217	12610	10	4.792	16.896	12684	10	11.213	19.136	12758*	260	8.146	23.691
12537	18	18.060	12.006	12611	15	5.078	16.740	12685	23	14.878	19.088	12759	8	9.792	23.840
12538	16	18.241	12.656	12612	15	5.393	16.982	12686	20	14.915	19.735	12760	26	11.066	23.646
12539	27	19.483	12.029	12613	25	6.218	16.112	12687	9	16.240	19.082	12761	8	11.566	23.607
12540*	64	20.004	12.212	12614	11	7.592	16.250	12688	8	16.336	19.384	12762	11	12.038	23.110
12541	27	21.830	12.806	12615	32	9.616	16.339	12689	8	16.830	19.098	12763	23	13.094	23.176
12542	10	22.334	12.353	12616	11	10.064	16.665	12690	21	19.630	19.198	12764	23	14.900	23.912
12543	12	24.854	12.573	12617	20	11.302	16.048	12691	43	19.957	19.846	12765	12	15.053	23.308
12544	15	3.922	13.700	12618	8	11.688	16.594	12692	11	20.850	19.722	12766	17	16.252	23.638
12545	20	4.459	13.814	12619	13	13.741	16.736	12693	21	21.288	19.446	12767	38	16.735	23.146
12546	22	4.587	13.126	12620	24	14.430	16.615	12694	17	21.520	19.721	12768	46	18.448	23.177
12547	18	5.754	13.541	12621	13	17.504	16.899	12695*	36	22.620	19.606	12769	13	19.026	23.873
12548	16	6.026	13.477	12622	16	17.649	16.244	12696	8	22.875	19.515	12770	42	19.252	23.144
12549	13	6.043	13.100	12623	22	17.905	16.995	12697	24	24.005	19.717	12771*	62	19.767	23.900
12550	15	7.648	13.036	12624	8	18.634	16.610	12698	16	24.852	19.884	12772	8	22.912	23.504
12551	11	8.348	13.370	12625	33	19.764	16.434	12699	41	25.670	19.461	12773	24	1.213	24.428
12552	17	9.612	13.376	12626	45	20.209	16.978	12700	65	0.470	20.634	12774	47	2.155	24.449
12553	13	9.723	13.080	12627	9	20.688	16.430	12701	19	0.096	20.150	12775*	61	2.948	24.203
12554	12	9.996	13.444	12628	21	21.437	16.414	12702	40	7.250	20.176	12776	23	5.033	24.182
12555	25	10.036	13.606	12629	27	22.786	16.881	12703	24	8.446	20.096	12777	21	6.778	24.950
12556	24	10.715	13.358	12630	26	25.247	16.030	12704	8	9.267	20.248	12778	30	7.445	24.165
12557	8	11.052	13.372	12631	20	25.635	16.545	12705	22	9.438	20.814	12779	28	8.440	24.689
12558	19	11.303	13.098	12632	15	0.783	17.048	12706	16	12.990	20.100	12780	22	12.287	24.928
12559	19	13.608	13.704	12633	10	0.848	17.913	12707	37	14.021	20.004	12781	15	12.682	24.254
12560	11	14.892	13.914	12634	14	7.926	17.420	12708	14	16.359	20.600	12782	27	12.706	24.998
12561	18	15.428	13.103	12635	18	9.983	17.055	12709	14	16.377	20.610	12783	25	13.501	24.704
12562	14	18.180	13.784	12636	27	10.073	17.086	12710	11	17.902	20.619	12784	9	17.487	24.272
12563	16	18.549	13.506	12637*	49	11.621	17.552	12711*	60	20.682	20.046	12785	35	20.870	24.445
12564	8	20.232	13.166	12638	30	13.144	17.029	12712	13	25.096	20.505	12786	35	21.082	24.005
12565	19	21.125	13.474	12639	8	16.138	17.740	12713	20	2.568	21.269	12787	40	22.306	24.169
12566	18	22.885	13.054	12640	23	17.063	17.610	12714	23	4.622	21.675	12788	15	23.342	24.280
12567	27	1.536	14.544	12641	17	17.587	17.870	12715	26	6.326	21.856	12789	20	0.106	25.466
12568	15	5.725	14.586	12642	24	17.994	17.992	12716	12	6.331	21.064	12790	23	0.940	25.432
12569	24	6.096	14.876	12643	40	19.556	17.873	12717	17	8.096	21.066	12791	27	2.105	25.730
12570*	40	9.122	14.672	12644	12	19.710	17.940	12718	19	8.256	21.078	12792	20	4.600	24.466
12571	8	10.278	14.738	12645	9	19.718	17.076	12719	10	10.118	21.174	12793	25	4.696	25.436
12572	20	10.280	14.576	12646	8	19.856	17.148	12720	14	11.206	21.216	12794*	56	5.876	25.259
12573	14	10.840	14.375	12647	37	20.087	17.494	12721	26	11.662	21.086	12795	19	6.582	25.966
12574	36	11.707	14.044	12648	14	20.228	17.946	12722	20	12.650	21.553	12796	13	6.650	25.300
12575	20	12.023	14.351	12649	9	21.654	17.208	12723	25	13.915	21.477	12797	8	7.134	25.450
12576	22	12.344	14.036	12650	14	21.963	17.476	12724	18	14.540	21.387	12798	13	7.418	25.419
12577	13	12.553	14.294	12651	24	21.995	17.183	12725	15	15.150	21.362	12799	8	12.272	25.281
12578	20	15.080	14.799	12652	17	22.910	17.849	12726	13	17.110	21.202	12800	37	14.928	25.605
12579	12	15.280	14.054	12653*	82	24.696	17.658	12727	22	20.554	21.172	12801	25	15.532	25.550
12580	19	16.884	14.328	12654	28	0.400	18.048	12728	24	20.722	21.314	12802	12	16.659	25.789
12581	21	17.235	14.504	12655*	40	4.226	18.638	12729	15	20.920	21.287	12803	24	16.670	25.608
12582	8	20.533	14.416	12656	10	5.141	18.850	12730	47	25.404	21.024	12804	36	19.900	25.394
12583	38	20.960	14.622	12657	9	5.474	18.342	12731	33	1.018	22.494	12805	22	21.856	25.246
12584	14	23.809	14.353	12658	16	7.442	18.492	12732*	60	3.332	22.340	12806	9	25.884	25.220
12585*	44	1.476	15.815	12659	13	10.656	18.394	12733	43	4.080	22.839				
12586*	49	3.233	15.166	12660	35	12.290	18.400	12734	29	4.928	22.644				
12587	10	4.168	15.072	12661	19	12.738	18.030	12735	9	5.084	22.484				
12588	16	5.840	15.716	12662	19	12.878	18.838	12736	19	6.223	22.866				
12589	15	6.276	15.896	12663	35	12.954	18.361	12737	24	6.687	22.118				
12590	18	8.362	15.696	12664	14	13.634	18.328	12738	14	8.901	22.483				
12591	22	8.607	15.622	12665	20	13.745	18.124	12739*	44	12.228	22.766				
12592	32	12.670	15.062	12666	19	14.630	18.407	12740	26	12.828	22.395				
12593	10	12.918	15.044	12667	20	15.044	18.077	12741	17	12.944	22.535				
12594	20	13.982	15.405	12668	19	15.466	18.080	12742	16	13.424	22.224				
12595	28	15.798	15.186	12669	29	17.910	18.994	12743	26	14.440	22.912				
12596	19	16.050	15.827	12670	10	18.766	18.800	12744	26	14.722	22.326				
12597	25	17.376	15.633	12671	32	20.078	18.694	12745	44	14.728	22.227				
12598	18	19.067	15.672	12672	26	21.086	18.108	12746	40	17.910	22.486				
12599	27	19.542	15.224	12673	20	23.489	18.618	12747	21	18.542	22.700				
12600	11	21.126	15.794	12674	21	23.815	18.614	12748	14	19.084	22.980				
12601	22	21.265	15.623	12675	14	0.464	19.255	12749	40	21.528	22.610				

R.A. 6<sup>h</sup> 28<sup>m</sup>

Plate 423; 1915 Jan. 9

Provisional Constants.

A B C  
 -01766 +00715 -0936

D E F  
 -00694 -01779 -0862

Mag. = 16.7 - 1.09√d

No.	d	x	y
12850*	58	5.506	0.784
12851	11	6.015	0.536
12852	14	11.564	0.814
12853	17	12.545	0.556
12854	22	14.338	0.714
12855	16	14.584	0.554
12856*	77	17.914	0.004
12857*	60	18.492	0.261
12858	23	18.548	0.926
12859	26	19.290	0.016
12860*	60	19.344	0.285
12861	33	19.607	0.074
12862	13	20.864	0.970
12863	14	22.793	0.417
12864	49	0.155	1.807
12865	8	0.406	1.958
12866	38	5.274	1.167
12867	8	6.556	1.309
12868	24	9.323	1.676
12869	41	11.982	1.379
12870	20	12.142	1.411
12871	10	13.703	1.904
12872	29	14.104	1.356
12873	10	14.516	1.216
12874	26	14.802	1.805
12875	42	18.604	1.977
12876*	52	19.264	1.912
12877	8	21.558	1.078
12878*	80	22.211	1.014
12879	8	22.236	1.590
12880	17	2.585	2.262
12881	45	2.896	2.026
12882	13	7.846	2.144
12883	11	8.307	2.032
12884	19	14.914	2.514
12885	13	15.675	2.849
12886	24	16.467	2.594
12887	8	18.626	2.715
12888	29	19.415	2.106
12889	13	21.584	2.345
12890	18	3.826	3.340
12891	34	6.326	3.764
12892	12	8.076	3.770
12893*	55	8.306	3.376
12894	16	9.036	3.125
12895*	40	10.040	3.099
12896	20	16.364	3.577
12897	24	16.708	3.807
12898	19	17.275	3.562
12899*	43	17.786	3.342
12900	12	19.802	3.442
12901	17	21.102	3.274
12902	11	23.448	3.283
12903	10	25.206	3.536
12904	67	25.556	3.972
12905	20	25.853	3.006



12906	25	1-858	4-778	12980	9	0-906	8-246	13054	18	11-532	12-290	13128*	36	10-184	17-580	13202	27	10-472	22-558
12907	28	4-862	4-608	12981	13	2-069	8-816	13055	36	12-396	12-932	13129	26	13-173	17-894	13203	23	12-352	22-722
12908	8	6-228	4-189	12982	14	3-906	8-087	13056	8	15-668	12-326	13130	11	13-520	17-244	13204	26	14-398	22-840
12909*	50	9-964	4-688	12983	10	4-847	8-723	13057	17	16-932	12-364	13131*	38	14-984	17-458	13205	36	16-045	22-022
12910	21	10-586	4-657	12984	15	5-866	8-304	13058	23	16-933	12-950	13132	10	15-184	17-214	13206	32	20-986	22-062
12911	11	10-604	4-344	12985	16	7-314	8-737	13059	20	19-543	12-582	13133	14	16-520	17-004	13207	9	22-379	22-216
12912	12	11-704	4-186	12986	31	7-414	8-708	13060	9	21-006	12-087	13134	8	16-910	17-032	13208	32	22-591	22-114
12913	20	12-268	4-718	12987	31	8-398	8-376	13061	19	21-265	12-540	13135	18	17-378	17-806	13209	33	24-607	22-804
12914	9	13-040	4-344	12988*	42	9-054	8-244	13062	8	24-471	12-988	13136	20	20-648	17-900	13210	13	5-135	23-925
12915	9	20-679	4-715	12989	28	9-094	8-924	13063	25	4-126	13-950	13137	8	24-394	17-666	13211	27	11-953	23-881
12916	8	24-837	4-173	12990	8	9-953	8-156	13064	18	6-597	13-520	13138	21	0-912	18-416	13212	16	14-836	23-716
12917	35	24-903	4-104	12991	11	10-306	8-026	13065	18	6-701	13-589	13139	16	1-236	18-405	13213	10	16-125	23-626
12918	34	2-857	5-041	12992	18	10-534	8-816	13066	9	7-277	13-685	13140	19	3-476	18-134	13214	24	17-678	23-504
12919	15	3-939	5-435	12993	19	12-592	8-316	13067	18	7-568	13-146	13141	21	9-492	18-750	13215	11	17-984	23-788
12920	11	4-016	5-304	12994	9	13-119	8-828	13068	19	8-362	13-237	13142	23	10-618	18-618	13216*	50	19-785	23-744
12921	23	4-656	5-930	12995	15	17-184	8-787	13069	20	14-556	13-774	13143	16	12-648	18-599	13217	11	20-408	23-860
12922	24	5-347	5-818	12996	15	17-284	8-764	13070	17	17-074	13-002	13144	13	12-851	18-481	13218	27	23-254	23-626
12923	14	6-634	5-050	12997	19	20-494	8-553	13071	23	17-946	13-257	13145	10	12-963	18-576	13219	11	25-554	23-866
12924	22	7-074	5-760	12998	18	21-185	8-299	13072	13	22-353	13-315	13146	10	19-105	18-710	13220	8	0-398	24-349
12925	21	7-974	5-503	12999	10	23-374	8-102	13073	8	22-515	13-506	13147	8	21-914	18-734	13221	40	4-146	24-225
12926	13	8-146	0-056	13000	22	24-200	8-642	13074	21	25-795	13-476	13148	22	25-675	18-994	13222	17	4-915	24-846
12927*	40	10-486	5-502	13001	36	1-080	9-148	13075	11	1-186	14-146	13149	36	0-050	19-414	13223	10	5-746	24-856
12928	14	13-712	5-655	13002	15	4-534	9-520	13076	8	1-823	14-986	13150	26	1-436	19-508	13224	26	10-116	24-934
12929	11	14-133	5-412	13003	11	13-948	9-002	13077	26	4-334	14-900	13151	11	2-286	19-666	13225	20	10-576	24-097
12930	14	14-308	5-880	13004	23	16-869	9-765	13078	12	5-336	14-657	13152	31	3-100	19-236	13226*	61	11-522	24-289
12931	19	14-430	5-484	13005	9	17-358	9-596	13079	15	6-056	14-700	13153	19	5-122	19-690	13227	11	12-117	24-368
12932	8	15-874	5-135	13006	27	17-532	9-336	13080	10	7-313	14-734	13154	12	6-034	19-126	13228*	40	12-921	24-356
12933	16	16-197	5-422	13007	11	18-277	9-598	13081	20	7-976	14-013	13155	12	12-268	19-877	13229	12	14-714	24-224
12934	9	17-216	5-355	13008	27	20-064	9-512	13082	23	10-574	14-510	13156*	40	12-598	19-162	13230	14	14-831	24-504
12935	34	18-026	5-142	13009	15	21-206	9-934	13083	20	14-058	14-737	13157	11	14-321	19-688	13231*	46	15-617	24-387
12936	9	18-896	5-064	13010*	51	22-662	9-283	13084	8	16-172	14-301	13158	19	16-064	19-050	13232	28	17-348	24-634
12937	37	19-153	5-197	13011	8	25-562	9-368	13085	19	17-754	14-988	13159	24	16-688	19-026	13233	12	18-858	24-061
12938	33	1-818	6-480	13012	11	5-912	10-072	13086	16	19-173	14-162	13160	30	22-974	19-888	13234	38	24-425	24-006
12939	9	3-226	6-681	13013	21	7-191	10-516	13087	21	20-950	14-600	13161	17	23-600	19-446	13235	8	24-665	24-490
12940	8	3-643	6-358	13014	12	7-429	10-074	13088	8	22-648	14-334	13162	10	2-542	20-284	13236	31	24-678	24-652
12941	24	6-248	6-588	13015	9	8-738	10-494	13089	18	22-718	14-104	13163	39	2-850	20-802	13237	43	8-615	25-798
12942	15	7-439	6-231	13016	44	9-297	10-306	13090*	52	24-971	14-336	13164	13	3-496	20-478	13238	8	9-848	25-730
12943	8	7-704	6-133	13017	32	9-420	10-282	13091	17	25-326	14-086	13165	9	4-344	20-676	13239	23	15-713	25-839
12944	13	10-166	6-704	13018	9	10-457	10-770	13092	42	25-337	14-126	13166	18	7-830	20-648	13240*	42	16-176	25-197
12945	36	11-183	6-082	13019	28	11-325	10-820	13093*	40	1-450	15-480	13167	23	8-644	20-435	13241	17	17-278	25-864
12946	29	11-932	6-796	13020	34	12-432	10-784	13094	19	2-643	15-809	13168	8	13-078	20-454	13242	22	19-285	25-549
12947	11	16-514	6-286	13021	9	14-246	10-124	13095	39	3-499	15-044	13169	21	13-326	20-904	13243	36	19-391	25-499
12948	11	19-464	6-914	13022	12	14-394	10-532	13096	8	5-193	15-804	13170	19	13-711	20-900	13244	24	20-468	25-882
12949	10	21-028	6-628	13023	16	14-944	10-126	13097	11	5-249	15-970	13171*	65	13-883	20-086				
12950	12	22-916	6-535	13024	8	15-038	10-467	13098	10	6-428	15-554	13172	19	15-552	20-022				
12951	33	24-210	6-376	13025	24	15-426	10-912	13099	36	6-552	15-512	13173	13	16-049	20-750				
12952	8	1-321	7-824	13026	17	18-354	10-450	13100	8	15-336	15-308	13174	32	18-350	20-422				
12953	25	2-246	7-908	13027	25	18-859	10-632	13101	15	16-036	15-674	13175	36	20-830	20-664				
12954	14	2-556	7-750	13028	16	20-325	10-856	13102	10	18-323	15-332	13176	8	21-106	20-186				
12955	18	3-809	7-840	13029	26	21-058	10-664	13103*	54	18-806	15-942	13177	17	21-625	20-833				
12956	30	6-697	7-576	13030	12	22-205	10-856	13104	40	19-124	15-134	13178	8	22-078	20-107				
12957	8	7-442	7-685	13031	39	1-152	11-322	13105	9	20-966	15-277	13179	10	23-331	20-378				
12958	16	7-704	7-636	13032	20	5-277	11-374	13106	16	21-264	15-456	13180*	65	4-248	21-486				
12959	17	7-724	7-166	13033	8	5-766	11-606	13107	9	22-847	15-449	13181	27	4-318	21-454				
12960*	34	9-058	7-583	13034*	55	6-975	11-160	13108	16	22-941	15-074	13182	13	4-975	21-280				
12961	41	9-184	7-504	13035	24	8-686	11-475	13109	31	22-942	15-864	13183	20	8-084	21-454				
12962	18	9-992	7-758	13036	27	9-707	11-760	13110	23	25-974	15-464	13184	18	8-660	21-470				
12963	8	10-484	7-729	13037	16	12-042	11-580	13111	26	0-187	16-685	13185	15	8-660	21-006				
12964	9	10-664	7-664	13038	23	13-294	11-676	13112	13	3-034	16-315	13186	8	9-927	21-654				
12965	14	11-739	7-926	13039	14	13-500	11-336	13113*	43	5-554	16-278	13187	10	13-163	21-150				
12966	14	14-126	7-337	13040	13	14-802	11-541	13114	10	5-962	16-856	13188	13	14-000	21-554				
12967	31	14-726	7-182	13041	13	18-596	11-286	13115	11	6-205	16-345	13189	15	14-006	21-806				
12968	44	16-805	7-143	13042	14	18-770	11-694	13116	9	10-088	16-738	13190	16	16-222	21-178				
12969	19	17-154	7-524	13043	38	19-438	11-260	13117	13	12-080	16-650	13191	31	16-584	21-889				
12970	13	18-634	7-803	13044*	40	20-784	11-880	13118	12	12-176	16-828	13192	13	18-612	21-800				</



13256	8	9.108	0.927	13330	8	19.396	4.089	13404	10	24.051	7.014	13478	8	0.636	12.052	13552	8	8.024	15.296
13257	8	12.302	0.432	13331	9	19.902	4.613	13405	12	0.748	8.536	13479	8	1.986	12.026	13553	9	8.154	15.640
13258*	45	12.575	0.055	13332	24	21.446	4.075	13406	21	1.854	8.152	13480	23	4.266	12.014	13554	12	8.637	15.926
13259	8	17.284	0.096	13333	13	21.500	4.999	13407	14	3.960	8.062	13481	8	4.456	12.774	13555	19	9.430	15.836
13260	58	21.694	0.298	13334	8	2.106	5.068	13408	29	5.908	8.480	13482	8	4.895	12.104	13556*	26	9.702	15.480
13261	11	21.810	0.554	13335	11	2.500	5.914	13409	14	6.076	8.646	13483*	42	5.078	12.046	13557*	65	11.768	15.190
13262	15	22.165	0.574	13336	11	3.370	5.528	13410	24	7.152	8.900	13484	11	5.778	12.001	13558	18	12.163	15.679
13263	8	1.354	1.168	13337	11	4.048	5.122	13411	10	10.944	8.470	13485	20	8.686	12.960	13559	9	13.666	15.626
13264	36	4.569	1.200	13338	14	6.026	5.376	13412	15	11.798	8.263	13486	12	9.662	12.284	13560*	32	18.031	15.944
13265	8	5.705	1.824	13339	37	6.110	5.507	13413	21	14.942	8.484	13487	11	11.594	12.787	13561	20	19.334	15.942
13266*	50	9.484	1.455	13340	18	7.276	5.596	13414	8	17.106	8.978	13488	8	14.108	12.359	13562	8	20.825	15.216
13267	17	13.650	1.694	13341	14	7.434	5.874	13415	8	17.241	8.562	13489	16	14.755	12.628	13563	10	21.000	15.518
13268	8	15.510	1.727	13342*	37	8.569	5.253	13416	8	17.406	8.274	13490	12	17.240	12.189	13564	8	21.200	15.230
13269	11	16.606	1.818	13343	8	11.400	5.815	13417	17	19.392	8.346	13491	8	17.714	12.998	13565	8	22.516	15.718
13270	8	16.920	1.654	13344*	37	12.164	5.555	13418	8	22.030	8.485	13492	8	18.127	12.542	13566	10	23.572	15.328
13271	17	17.294	1.514	13345	8	14.203	5.271	13419	12	22.956	8.611	13493	8	21.727	12.546	13567	23	0.448	16.306
13272	8	18.037	1.874	13346	8	14.425	5.774	13420	12	24.054	8.118	13494	12	22.346	12.145	13568	11	5.668	16.863
13273	8	18.256	1.982	13347	8	18.914	5.900	13421*	61	24.539	8.261	13495	8	23.158	12.416	13569	22	5.876	16.528
13274	8	19.517	1.275	13348	8	22.193	5.166	13422	34	24.736	8.654	13496	12	24.744	12.612	13570	18	8.490	16.120
13275*	28	20.106	1.587	13349	10	23.700	5.196	13423	16	25.648	8.728	13497	12	24.802	12.254	13571	12	9.566	16.456
13276	12	21.486	1.324	13350	8	24.182	5.536	13424	47	0.054	9.734	13498	9	1.928	13.407	13572	10	12.718	16.830
13277	9	24.686	1.905	13351	25	24.826	5.859	13425	8	0.555	9.910	13499	16	3.262	13.871	13573	8	15.742	16.118
13278	11	25.072	1.870	13352	8	25.129	5.796	13426	17	1.585	9.064	13500	8	5.230	13.288	13574	12	15.780	16.607
13279	9	1.364	2.806	13353	18	25.399	5.345	13427	8	2.960	9.770	13501	8	7.913	13.217	13575	16	18.224	16.476
13280	8	3.772	2.422	13354	9	25.804	5.406	13428	8	4.218	9.394	13502	8	8.254	13.684	13576	11	19.145	16.704
13281	10	6.930	2.380	13355	10	0.274	6.984	13429	8	4.222	9.552	13503	8	12.047	13.472	13577	8	20.436	16.575
13282	16	8.104	2.086	13356	18	1.558	6.798	13430*	55	8.525	9.552	13504	20	12.149	13.230	13578	20	23.032	16.056
13283	8	10.916	2.598	13357	14	4.250	6.928	13431	12	9.620	9.766	13505	11	13.958	13.546	13579	8	23.210	16.518
13284	8	12.458	2.731	13358	12	4.583	6.376	13432	8	10.636	9.226	13506	8	14.517	13.144	13580	61	25.184	16.556
13285	14	13.115	2.528	13359	8	6.756	6.766	13433	21	11.259	9.546	13507	12	15.265	13.320	13581	25	2.425	17.210
13286	11	13.948	2.998	13360	8	6.972	6.170	13434	13	11.989	9.564	13508	9	19.334	13.946	13582	21	3.546	17.198
13287	28	14.128	2.778	13361	29	7.311	6.158	13435	14	18.100	9.196	13509	8	19.434	13.398	13583	8	8.633	17.230
13288*	41	16.154	2.305	13362	8	8.095	6.300	13436	10	19.542	9.531	13510*	39	21.358	13.376	13584	10	11.484	17.420
13289	13	16.600	2.556	13363	15	10.160	6.514	13437	8	21.180	9.614	13511	18	21.554	13.575	13585	8	11.822	17.624
13290*	36	16.610	2.976	13364	8	11.003	6.568	13438	8	25.098	9.616	13512	8	25.360	13.474	13586	18	12.398	17.434
13291*	35	18.568	2.464	13365	8	13.774	6.634	13439	20	25.466	9.380	13513	8	0.129	14.782	13587	16	14.886	17.888
13292	11	18.824	2.707	13366	18	15.258	6.730	13440	39	25.468	9.044	13514	14	0.197	14.548	13588*	39	16.040	17.922
13293	8	19.738	2.786	13367	11	15.864	6.734	13441	8	1.284	10.165	13515	8	0.742	14.678	13589	19	17.914	17.126
13294	15	19.844	2.615	13368	15	17.019	6.360	13442	8	3.884	10.924	13516*	45	2.450	14.744	13590	12	18.058	17.290
13295	15	20.482	2.031	13369	19	19.006	6.786	13443*	102	7.472	10.334	13517	12	2.804	14.490	13591	8	18.886	17.538
13296	8	20.892	2.962	13370	8	20.594	6.131	13444	14	10.138	10.223	13518	34	2.814	14.530	13592	12	21.906	17.584
13297	8	24.572	2.416	13371	13	20.984	6.827	13445	21	10.738	10.402	13519*	8	3.826	14.644	13593	8	1.214	18.573
13298	8	0.746	3.715	13372	23	22.961	6.102	13446	35	12.638	10.500	13520	12	5.446	14.857	13594	8	3.033	18.961
13299	13	2.512	3.944	13373	8	24.204	6.650	13447	8	12.796	10.616	13521*	76	5.834	14.506	13595	16	3.575	18.413
13300	21	3.150	3.494	13374	11	25.366	6.485	13448	12	13.432	10.336	13522	12	7.916	14.080	13596	20	3.906	18.736
13301	8	3.571	3.410	13375	8	1.630	7.320	13449	10	14.234	10.380	13523	10	9.204	14.146	13597	18	4.468	18.165
13302	8	4.446	3.538	13376	14	2.955	7.796	13450	9	14.924	10.784	13524	37	10.510	14.120	13598	8	6.169	18.406
13303	8	5.480	3.842	13377	9	4.780	7.214	13451	9	15.466	10.046	13525	9	12.365	14.140	13599	8	6.982	18.302
13304*	80	7.764	3.111	13378	12	5.002	7.436	13452	20	17.782	10.324	13526	8	13.006	14.383	13600	25	7.760	18.252
13305	14	9.648	3.546	13379	10	5.093	7.912	13453	22	18.764	10.988	13527	8	13.300	14.996	13601	8	7.792	18.220
13306	15	10.924	3.000	13380	11	5.396	7.406	13454	8	19.624	10.928	13528	14	13.865	14.114	13602	11	8.018	18.066
13307	8	12.762	3.420	13381	21	6.770	7.230	13455	15	19.762	10.314	13529	11	14.342	14.805	13603*	20	9.891	18.035
13308	14	14.670	3.176	13382	8	6.866	7.606	13456	8	21.302	10.116	13530	8	14.896	14.320	13604*	40	10.084	18.188
13309	9	16.216	3.074	13383	8	7.665	7.734	13457	14	22.950	10.713	13531	21	15.716	14.816	13605	19	11.183	18.774
13310	9	16.926	3.254	13384*	57	9.460	7.682	13458	11	24.275	10.320	13532	20	16.075	14.421	13606	9	12.414	18.094
13311	8	19.068	3.984	13385	25	10.308	7.711	13459	13	25.044	10.168	13533	8	17.041	14.880	13607	11	15.807	18.864
13312	9	19.268	3.824	13386	12	10.384	7.444	13460	11	0.994	11.616	13534	12	17.662	14.085	13608	13	16.586	18.657
13313	9	19.956	3.244	13387	14	13.528	7.782	13461	12	5.770	11.013	13535	10	18.342	14.700	13609	10	19.722	18.319
13314	8	20.324	3.105	13388	10	14.107	7.855	13462	20	6.220	11.015	13536	11	18.469	14.854	13610	8	20.328	18.500
13315	12	20.655	3.804	13389	8	14.289	7.182	13463	11	8.512	11.650	13537	12	18.506	14.251	13611	14	1.169	19.877
13316	8	20.956	3.074	13390	8	14.622	7.885	13464	22	8.536	11.406	13538	15	19.500	14.236	13612	14	3.236	19.390
13317	8	23.418	3.414	13391	18	15.838	7.659	13465	8	10.329	11.692	13539	11	20.660	14.346	13613	8	4.508	19.359
13318	9	2.160	4.582	13392	10	16.788	7.966	13466	8	10.700	11.900	13540	12	21.064	14.227	13614	12	5.546	19.305
13319	32	2.216	4.516</																



13626	8	24°774	19°248	13700	20	20°965	23°800	13754	13	11°459	0°277	13828	18	18°276	5°669	13902	8	23°040	8°636
13627	23	0°549	20°332	13701	27	21°740	23°426	13755	8	13°373	0°932	13829	16	19°049	5°308	13903	8	0°460	9°264
13628	9	0°917	20°816	13702	8	22°142	23°146	13756	12	16°440	0°746	13830	18	23°424	5°545	13904	39	2°236	9°301
13629	14	3°892	20°818	13703	8	22°506	23°452	13757	8	16°928	0°620	13831	12	23°537	5°250	13905*	49	2°968	9°690
13630	18	4°574	20°936	13704	8	24°708	23°096	13758	26	17°838	0°347	13832	20	0°458	6°756	13906	20	3°150	9°376
13631	13	7°184	20°948	13705	15	0°894	24°064	13759	79	18°155	0°406	13833	8	1°680	6°184	13907	8	3°933	9°743
13632	9	7°280	20°152	13706	41	2°070	24°420	13760	10	19°342	0°942	13834	21	2°324	6°514	13908	9	5°951	9°810
13633	8	9°118	20°566	13707	8	2°322	24°899	13761	8	19°566	0°044	13835	8	3°302	6°050	13909	14	10°701	9°509
13634	8	9°766	20°162	13708	12	3°200	24°266	13762	12	5°870	1°643	13836	10	4°397	6°749	13910	9	14°970	9°918
13635	9	12°869	20°564	13709	37	4°030	24°218	13763*	32	7°412	1°292	13837	16	4°410	6°956	13911	20	15°810	9°889
13636	19	13°226	20°347	13710	9	6°646	24°505	13764	15	10°344	1°189	13838	16	4°766	6°420	13912	24	15°954	9°362
13637*	42	14°308	20°853	13711	19	7°576	24°361	13765	15	11°508	1°104	13839	18	5°199	6°774	13913	19	16°358	9°616
13638	8	14°320	20°758	13712	8	7°630	24°641	13766	8	16°586	1°938	13840	21	5°704	6°981	13914	8	16°767	9°598
13639	15	16°450	20°611	13713	12	9°010	24°236	13767	8	17°679	1°934	13841	12	6°580	6°766	13915	8	17°966	9°627
13640*	31	17°250	20°706	13714	9	10°276	24°914	13768	8	2°180	2°554	13842	9	6°769	6°822	13916	13	21°826	9°972
13641	8	18°070	20°850	13715	8	10°404	24°887	13769	9	2°565	2°522	13843	8	7°201	6°680	13917	17	21°986	9°154
13642*	41	18°752	20°892	13716	9	13°884	24°342	13770	13	7°110	2°666	13844	8	8°350	6°660	13918	11	1°780	10°969
13643	8	19°004	20°829	13717	8	15°812	24°226	13771	8	7°140	2°246	13845	9	9°022	6°260	13919	13	2°547	10°816
13644	8	20°656	20°918	13718	8	15°844	24°784	13772*	29	8°666	2°446	13846	9	10°634	6°450	13920	8	2°602	10°266
13645	12	24°644	20°465	13719	10	16°115	24°285	13773	14	10°442	2°788	13847	21	11°284	6°458	13921	18	2°970	10°027
13646	13	25°256	20°954	13720	17	17°508	24°655	13774*	66	13°690	2°590	13848	8	12°033	6°750	13922	11	3°861	10°414
13647	31	25°358	20°330	13721	10	20°312	24°352	13775	8	14°743	2°157	13849	12	12°178	6°460	13923*	41	4°746	10°744
13648	20	25°964	20°052	13722	23	20°900	24°752	13776	33	18°826	2°270	13850	11	17°199	6°270	13924*	40	6°816	10°414
13649	25	2°822	21°835	13723	11	21°443	24°336	13777*	85	24°890	2°472	13851	12	18°430	6°436	13925	11	7°076	10°074
13650	20	3°687	21°085	13724	8	24°906	24°946	13778	36	4°056	3°765	13852	10	20°650	6°128	13926	20	7°565	10°956
13651	20	3°728	21°006	13725*	48	25°044	24°586	13779	8	4°566	3°351	13853	30	21°860	6°920	13927	12	7°824	10°610
13652	12	4°714	21°476	13726	29	2°340	25°058	13780	13	4°830	3°284	13854	29	22°334	6°236	13928	8	8°310	10°319
13653	17	5°924	21°425	13727	8	3°220	25°110	13781	16	5°220	3°050	13855	9	22°869	6°907	13929	11	8°450	10°388
13654	8	7°446	21°814	13728	9	5°979	25°379	13782	8	5°258	3°724	13856	10	25°853	6°352	13930	23	11°996	10°078
13655	8	9°940	21°286	13729	18	8°808	25°811	13783	11	5°970	3°578	13857	8	1°050	7°572	13931	21	16°380	10°532
13656	10	10°196	21°400	13730	60	9°195	25°778	13784	10	7°904	3°260	13858	14	1°550	7°661	13932	9	16°490	10°866
13657	12	12°082	21°543	13731	12	9°316	25°918	13785	12	10°380	3°389	13859	8	1°700	7°300	13933	32	16°680	10°266
13658	11	14°048	21°764	13732	11	10°178	25°878	13786	9	10°395	3°210	13860	8	2°865	7°132	13934	11	16°715	10°235
13659	14	15°807	21°474	13733	8	11°928	25°802	13787	28	11°140	3°704	13861	17	4°873	7°621	13935	36	17°244	10°143
13660	8	18°732	21°848	13734	19	14°174	25°540	13788	13	12°612	3°167	13862	14	6°088	7°110	13936	12	17°559	10°700
13661	19	19°700	21°288	13735	13	14°214	25°526	13789	8	13°842	3°654	13863	20	10°450	7°436	13937	20	17°931	10°200
13662	12	20°034	21°330	13736	10	15°432	25°120	13790	11	14°581	3°880	13864	8	14°836	7°772	13938	8	19°819	10°796
13663	10	20°215	21°404	13737	24	16°887	25°068	13791	8	15°236	3°954	13865	17	14°870	7°596	13939	16	20°161	10°688
13664*	61	23°902	21°412	13738	8	17°105	25°604	13792*	60	16°350	3°728	13866	10	15°886	7°808	13940	8	20°234	10°219
13665	25	0°203	22°560	13739	24	17°556	25°715	13793	38	19°621	3°307	13867	22	15°977	7°648	13941	28	20°835	10°960
13666	17	7°756	22°621	13740	25	19°875	25°302	13794	17	19°841	3°812	13868	12	16°598	7°086	13942	11	21°594	10°681
13667*	46	8°046	22°816	13741	53	20°926	25°868	13795	9	22°918	3°529	13869	8	17°648	7°474	13943	14	0°455	11°366
13668	10	8°424	22°830	13742	10	22°136	25°350	13796	17	25°606	3°524	13870	17	19°450	7°464	13944	8	0°704	11°690
13669	15	8°736	22°484	13743*	35	22°140	25°440	13797	8	0°914	4°065	13871	36	23°120	7°293	13945*	45	4°890	11°124
13670	10	9°106	22°590	13744	37	25°366	25°981	13798	8	4°956	4°268	13872	26	24°354	7°150	13946	8	5°728	11°725
13671	8	10°830	22°805					13799	41	7°940	4°450	13873	8	24°970	7°598	13947	8	5°790	11°604
13672	8	13°774	22°481					13800	10	8°446	4°570	13874	11	25°885	7°271	13948*	37	6°669	11°244
13673	28	16°456	22°768					13801	21	10°850	4°072	13875	14	0°646	8°188	13949	16	7°044	11°624
13674*	40	16°780	22°924					13802	8	11°752	4°714	13876	12	1°555	8°770	13950	8	8°362	11°494
13675	10	17°478	22°778					13803	11	12°187	4°861	13877*	56	2°032	8°906	13951	11	9°193	11°034
13676	8	21°364	22°613					13804	12	12°300	4°413	13878*	400	3°570	8°394	13952	11	11°221	11°662
13677	12	22°586	22°508					13805	24	17°358	4°386	13879	19	3°766	8°566	13953	12	11°670	11°416
13678	13	23°000	22°464					13806	21	18°176	4°216	13880	12	5°265	8°342	13954	9	12°223	11°922
13679	8	24°019	22°748					13807	9	19°646	4°640	13881	8	5°664	8°536	13955	8	14°407	11°972
13680	8	25°126	22°594					13808	8	22°676	4°946	13882	12	7°608	8°880	13956	13	15°102	11°178
13681	20	2°236	23°216					13809*	48	23°760	4°516	13883	18	9°420	8°682	13957	27	15°178	11°265
13682*	60	4°199	23°092					13810	8	1°198	5°849	13884	12	9°636	8°278	13958	13	16°520	11°596
13683	10	6°155	23°406					13811	15	2°896	5°994	13885	10	10°014	8°724	13959*	46	18°209	11°148
13684	11	7°646	23°724					13812	8	4°527	5°498	13886	31	11°138	8°587	13960	8	18°869	11°311
13685*	43	7°976	23°257					13813	18	5°026	5°429	13887	9	11°657	8°444	13961	12	20°766	11°474
13686	15	8°124	23°606					13814	11	6°024	5°912	13888	21	11°880	8°466	13962	20	21°959	11°174
13687	16	8°696	23°846					13815*	55	6°161	5°919	13889	9	12°149	8°510	13963	16	0°547	12°641
13688	10	9°190	23°326					13816	6	8°17	5°197	13890	9	13°339	8°475	13964	19	2°310	12°900
13689	12	10°050	23°844					13817	13	11°165	5°952	13891	15	13°502	8°252	13965*	51	3°102	12°466
13690	22	11°510	23°108					13818	8	11°430	5°905	13892	24	14°012	8°537	13966	14	3°508	12°360
13691	8	12°710	23°974					13819											



13976	21	13.768	12.063	14050	40	25.614	15.334	14124	8	10.813	20.500	14198	12	9.174	24.469	14270	18	4.189	1.740
13977	20	14.088	12.856	14051	21	0.547	16.710	14125	20	10.899	20.016	14199*	57	9.300	24.650	14271	25	5.608	1.671
13978	14	14.808	12.964	14052	11	4.954	16.676	14126	8	11.038	20.904	14200	20	11.090	24.907	14272	8	5.692	1.144
13979	11	18.082	12.990	14053	11	5.452	16.905	14127	12	11.216	20.820	14201	36	12.010	24.296	14273	8	5.694	1.972
13980*	72	18.215	12.836	14054	22	6.726	16.932	14128	13	12.335	20.815	14202	37	14.110	24.296	14274	14	10.543	1.636
13981	35	20.344	12.576	14055	14	10.820	16.384	14129	19	13.985	20.474	14203	9	14.540	24.714	14275*	23	10.724	1.132
13982	8	20.405	12.598	14056	20	14.540	16.126	14130*	40	15.971	20.416	14204	52	15.300	24.166	14276*	40	11.112	1.322
13983	12	21.706	12.972	14057	12	15.218	16.676	14131	20	17.592	20.047	14205	11	17.480	24.730	14277	24	16.965	1.287
13984	8	0.670	13.066	14058	15	16.480	16.124	14132	12	19.604	20.772	14206	14	19.396	24.846	14278	8	19.204	1.167
13985	19	2.252	13.258	14059	34	16.720	16.496	14133	14	20.150	20.650	14207*	80	21.240	24.146	14279	14	19.300	1.195
13986	8	3.917	13.064	14060	8	17.552	16.740	14134	19	21.600	20.256	14208	19	21.896	24.018	14280	23	20.543	1.365
13987	16	4.900	13.455	14061	9	25.527	16.263	14135	18	21.720	20.590	14209	12	22.422	24.064	14281*	39	21.978	1.959
13988	20	6.940	13.810	14062	12	25.574	16.670	14136	18	22.101	20.194	14210	12	23.718	24.374	14282	10	22.868	1.886
13989	15	10.039	13.320	14063*	54	2.692	17.200	14137	15	23.640	20.791	14211	21	25.194	24.396	14283	10	24.725	1.102
13990	37	10.604	13.976	14064	17	3.884	17.676	14138	40	24.092	20.246	14212	10	2.442	25.584	14284	17	24.742	1.040
13991	11	11.926	13.615	14065	10	3.900	17.050	14139	12	24.893	20.482	14213*	57	2.568	25.226	14285	13	25.141	1.430
13992	12	12.626	13.551	14066	14	4.966	17.077	14140	12	25.214	20.550	14214	20	5.310	25.220	14286	9	25.322	1.634
13993	25	12.934	13.402	14067	8	6.686	17.640	14141	31	25.602	20.550	14215	31	10.904	25.494	14287	28	25.454	1.714
13994	20	15.164	13.152	14068	15	6.835	17.800	14142	12	2.166	21.112	14216	11	11.234	25.149	14288*	95	2.144	2.400
13995	8	15.116	13.584	14069	29	7.834	17.144	14143	15	2.784	21.601	14217	9	12.202	25.856	14289	18	3.174	2.108
13996	13	17.002	13.619	14070	25	8.123	17.673	14144	9	3.186	21.212	14218	31	13.572	25.670	14290	17	4.133	2.640
13997	17	17.398	13.216	14071	9	8.856	17.841	14145	12	4.392	21.200	14219	10	13.620	25.290	14291	31	4.456	2.364
13998	19	19.382	13.400	14072	20	9.298	17.766	14146*	29	4.546	21.984	14220	13	15.730	25.640	14292	8	6.281	2.536
13999	10	20.284	13.584	14073	10	10.410	17.354	14147	8	7.435	21.683	14221	11	18.025	25.510	14293	15	10.264	2.244
14000	15	20.318	13.918	14074*	77	10.526	17.948	14148	14	8.497	21.080	14222	25	18.747	25.204	14294	11	11.086	2.855
14001	10	22.596	13.552	14075	20	12.786	17.980	14149	21	9.786	21.084	14223	13	22.012	25.926	14295	18	11.820	2.844
14002	17	24.529	13.282	14076	10	12.891	17.874	14150	17	10.310	21.066	14224	8	24.150	25.475	14296	29	12.780	2.494
14003*	80	5.042	14.140	14077	16	14.617	17.297	14151	8	11.645	21.516	14225	37	24.674	25.841	14297	17	14.786	2.888
14004	9	5.534	14.472	14078	21	15.050	17.232	14152	13	13.054	21.138	14226	12	24.697	25.852	14298	12	16.921	2.206
14005	11	7.228	14.496	14079	15	16.064	17.139	14153	8	13.328	21.266					14299	18	17.690	2.166
14006	16	8.671	14.516	14080	8	18.190	17.034	14154	16	14.044	21.624					14300	37	19.858	2.162
14007	12	10.130	14.016	14081	10	22.007	17.491	14155	31	15.855	21.611					14301	27	20.174	2.446
14008	14	10.884	14.174	14082	11	22.279	17.504	14156	13	16.422	21.803					14302	11	21.258	2.023
14009	8	10.885	14.371	14083	8	6.183	18.524	14157	11	18.210	21.597					14303	26	25.568	2.814
14010*	60	12.050	14.635	14084	8	6.740	18.047	14158*	60	20.034	21.924					14304	18	0.198	3.468
14011	14	12.344	14.609	14085	21	9.166	18.613	14159	10	23.300	21.279					14305	24	2.885	3.438
14012	20	12.414	14.626	14086	22	9.238	18.634	14160	40	24.792	21.904					14306	27	3.578	3.946
14013	21	13.096	14.030	14087	9	10.018	18.610	14161*	61	1.421	22.061					14307	29	3.936	3.608
14014	8	13.166	14.638	14088	12	10.148	18.530	14162	25	8.178	22.048					14308	15	5.266	3.144
14015	19	13.544	14.638	14089	24	10.590	18.950	14163	13	8.399	22.945					14309	35	8.036	3.550
14016*	35	13.923	14.992	14090	17	10.662	18.100	14164	10	9.261	22.509					14310	9	9.096	3.474
14017	21	15.028	14.564	14091	12	15.526	18.510	14165	20	13.026	22.366					14311	47	9.716	3.330
14018	20	16.480	14.564	14092	28	15.937	18.012	14166	8	14.426	22.532					14312	9	10.144	3.248
14019	10	17.172	14.787	14093*	52	16.666	18.557	14167	8	15.194	22.499					14313	9	11.574	3.388
14020*	35	17.886	14.774	14094	8	19.188	18.076	14168	10	18.153	22.931					14314	10	11.634	3.714
14021	10	18.712	14.276	14095	13	20.322	18.578	14169	8	19.268	22.782					14315	21	12.050	3.876
14022	28	18.822	14.170	14096	9	20.484	18.610	14170	23	19.570	22.124					14316	33	12.267	3.857
14023	15	18.922	14.468	14097	38	22.805	18.856	14171	13	19.712	22.744					14317	22	12.488	3.370
14024*	60	22.686	14.680	14098	22	24.126	18.168	14172	11	0.119	23.162					14318	20	13.986	3.167
14025	8	23.844	14.500	14099	13	25.264	18.008	14173	16	0.529	23.112					14319	42	16.235	3.738
14026	14	0.365	15.086	14100	8	2.290	19.898	14174	8	2.242	23.742					14320	9	16.300	3.586
14027	20	1.204	15.275	14101	8	3.314	19.350	14175	10	2.651	23.235					14321	10	16.557	3.642
14028	9	3.737	15.262	14102	8	4.620	19.416	14176	8	4.216	23.672					14322	16	17.306	3.748
14029	8	5.524	15.076	14103	14	6.158	19.024	14177	12	9.597	23.641					14323*	43	18.644	3.332
14030	35	5.786	15.225	14104	19	7.039	19.398	14178	25	10.410	23.594					14324	37	18.674	3.652
14031	8	7.033	15.703	14105	15	7.760	19.345	14179	22	11.181	23.945					14325	8	20.630	3.526
14032	19	7.346	15.931	14106	8	10.282	19.860	14180	25	12.413	23.470					14326	23	21.726	3.535
14033	8	8.963	15.754	14107	21	11.876	19.556	14181	11	12.697	23.946					14327	18	22.186	3.250
14034	14	12.699	15.093	14108	9	12.894	19.110	14182	8	13.762	23.072					14328	10	22.741	3.702
14035	10	14.184	15.330	14109	8	13.109	19.914	14183	40	17.365	23.632					14329*	45	23.069	3.374
14036	8	15.662	15.351	14110	20	14.970	19.873	14184	22	18.540	23.810					14330	22	23.776	3.942
14037	23	16.383	15.304	14111	29	19.447	19.798	14185	8	18.850	23.969					14331	12	23.919	3.378
14038	8	16.510	15.130	14112	17	19.764	19.135	14186	11	21.508	23.228					14332*	45	1.044	4.453
14039	29	17.328	15.204	14113	13	20.185	19.240	14187	12	23.198	23.836					14333	18	3.126	4.650
14040*	83	18.006	15.277	14114	60	25.688	19.090	14188	24	24.086	23.794					14334	11	3.328	4.813
14041	26	18.184	15.985	14115*	37	2.878	20.974	14189	8	25.668	23.112					14335	10	3.906	4.464
14042	16	18.650	15.479	14116	22	3.486	20.699	14190	18										



14344	20	14.296	4.502	14418	26	16.238	7.513	14492	23	20.981	10.678	14566	10	19.464	13.028	14640	38	16.724	16.441
14345*	61	15.228	4.220	14419	8	16.458	7.155	14493	30	21.878	10.800	14567	25	20.319	13.345	14641	19	16.986	16.126
14346	15	16.456	4.606	14420	19	17.776	7.504	14494	13	23.865	10.458	14568	13	20.874	13.736	14642	8	17.214	16.178
14347	20	17.808	4.675	14421	32	17.786	7.522	14495	22	24.072	10.944	14569	12	20.974	13.114	14643	19	17.744	16.942
14348	16	19.943	4.946	14422	11	18.202	7.038	14496	14	24.175	10.826	14570	17	21.171	13.886	14644	27	19.578	16.436
14349	20	22.919	4.446	14423	25	18.266	7.636	14497	8	25.115	10.665	14571*	30	24.097	13.302	14645	12	20.014	16.242
14350	29	23.025	4.529	14424	17	19.063	7.833	14498	19	25.472	10.420	14572	19	25.492	13.078	14646	27	20.220	16.058
14351	38	25.411	4.799	14425	20	19.079	7.526	14499	26	25.696	10.483	14573	60	0.072	14.627	14647	13	20.614	16.789
14352	24	0.724	5.483	14426	10	19.488	7.191	14500	11	2.822	11.267	14574	12	1.232	14.436	14648	9	22.982	16.316
14353	11	0.832	5.186	14427	19	21.082	7.910	14501	13	3.271	11.895	14575	20	6.144	14.232	14649	25	23.253	16.638
14354	15	2.066	5.878	14428	9	21.191	7.057	14502	29	8.216	11.174	14576	32	7.687	14.977	14650	23	23.284	16.239
14355	19	4.364	5.540	14429	30	21.966	7.666	14503	11	9.336	11.486	14577	19	8.784	14.756	14651	17	23.484	16.656
14356	23	5.832	5.019	14430	23	22.174	7.250	14504	15	11.424	11.413	14578*	63	9.428	14.096	14652	22	2.690	17.930
14357	33	7.034	5.716	14431	27	22.453	7.408	14505	14	11.470	11.702	14579	10	9.928	14.300	14653	12	2.927	17.232
14358*	48	8.716	5.625	14432*	40	22.679	7.524	14506	22	14.534	11.754	14580	22	10.036	14.870	14654	26	4.352	17.046
14359	12	8.757	5.839	14433	11	25.018	7.840	14507	44	15.600	11.638	14581	26	11.338	14.872	14655	15	4.984	17.548
14360	36	9.364	5.773	14434	12	0.364	8.582	14508	10	16.650	11.854	14582	20	12.046	14.124	14656	9	5.084	17.572
14361	9	9.500	5.946	14435	9	1.830	8.506	14509	12	17.119	11.532	14583	13	12.222	14.724	14657	17	5.220	17.608
14362	9	10.144	5.108	14436	18	4.156	8.882	14510	28	21.501	11.412	14584	33	15.071	14.990	14658	14	5.422	17.764
14363	21	10.175	5.568	14437	20	6.091	8.535	14511	8	21.648	11.633	14585	16	15.375	14.178	14659	8	6.972	17.993
14364	16	11.422	5.670	14438*	52	7.348	8.726	14512	13	22.573	11.205	14586	17	16.866	14.550	14660	19	6.982	17.074
14365	16	12.362	5.146	14439	11	8.802	8.518	14513	16	22.735	11.640	14587	20	17.006	14.676	14661	15	8.642	17.765
14366*	52	12.964	5.653	14440	10	9.286	8.774	14514	15	23.143	11.962	14588	8	17.621	14.507	14662	19	9.302	17.406
14367	42	13.493	5.322	14441	14	10.085	8.124	14515	10	23.408	11.086	14589	11	17.754	14.908	14663	18	12.337	17.278
14368*	55	14.445	5.316	14442	45	10.976	8.442	14516*	42	23.758	11.790	14590*	42	18.211	14.677	14664	26	13.894	17.400
14369	11	14.745	5.894	14443	16	12.434	8.005	14517	10	4.114	12.200	14591	8	18.488	14.490	14665	17	14.144	17.869
14370*	56	15.760	5.807	14444	47	14.263	8.002	14518	23	5.316	12.627	14592	34	18.745	14.436	14666	8	15.317	17.319
14371*	65	15.865	5.440	14445	17	15.104	8.590	14519	35	6.410	12.166	14593	9	19.618	14.426	14667	26	15.446	17.058
14372	9	16.075	5.826	14446	19	16.236	8.642	14520	27	7.292	12.674	14594	31	19.886	14.496	14668	24	15.654	17.514
14373	43	18.690	5.874	14447	29	16.846	8.581	14521	9	9.683	12.904	14595	16	20.356	14.726	14669	15	16.454	17.390
14374	26	21.108	5.916	14448	22	17.140	8.624	14522	20	10.172	12.699	14596	17	20.489	14.431	14670	19	16.462	17.604
14375	9	21.286	5.194	14449	32	17.676	8.280	14523	33	10.186	12.380	14597	31	21.240	14.716	14671	9	20.584	17.398
14376	9	21.610	5.582	14450	10	18.450	8.758	14524	17	11.082	12.383	14598	34	21.386	14.442	14672	15	23.002	17.050
14377	14	21.815	5.860	14451	20	20.017	8.166	14525*	120	11.843	12.154	14599	15	25.934	14.216	14673	15	24.062	17.444
14378	27	22.176	5.221	14452	17	20.190	8.934	14526	9	12.622	12.607	14600	38	0.398	15.196	14674	21	25.668	17.920
14379	11	24.584	5.590	14453	15	2.029	9.777	14527	20	13.124	12.446	14601	8	0.478	15.200	14675	32	0.236	18.802
14380	10	0.181	6.853	14454	14	3.996	9.830	14528	35	13.938	12.263	14602	27	0.744	15.282	14676	31	1.555	18.100
14381	9	0.510	6.426	14455	8	4.068	9.772	14529*	55	14.075	12.412	14603	10	1.536	15.838	14677	20	4.294	18.815
14382	18	3.164	6.264	14456*	61	4.566	9.992	14530*	62	14.428	12.636	14604	19	1.850	15.030	14678	33	5.915	18.310
14383	23	4.985	6.783	14457	42	6.490	9.764	14531	18	15.382	12.000	14605	11	2.357	15.349	14679	17	5.943	18.925
14384	9	5.662	6.385	14458	8	8.326	9.506	14532	8	15.431	12.736	14606*	40	3.009	15.250	14680	21	5.984	18.991
14385	23	7.498	6.292	14459	8	8.417	9.060	14533*	47	15.500	12.584	14607	8	4.192	15.194	14681	18	6.424	18.692
14386*	44	8.215	6.165	14460	11	8.558	9.288	14534	11	15.564	12.462	14608	37	4.815	15.060	14682	14	6.819	18.136
14387	10	8.558	6.199	14461	26	10.196	9.760	14535	8	15.704	12.715	14609	18	4.876	15.555	14683	41	6.820	18.520
14388	25	8.850	6.044	14462	19	10.518	9.932	14536	31	17.414	12.422	14610	28	5.704	15.584	14684	21	6.892	18.000
14389	11	8.941	6.274	14463	22	11.316	9.998	14537	10	17.614	12.234	14611	38	6.409	15.335	14685	22	7.056	18.846
14390*	50	10.646	6.080	14464	17	15.176	9.474	14538	39	18.011	12.395	14612	13	7.108	15.354	14686	21	9.363	18.006
14391	16	11.194	6.383	14465	24	15.546	9.301	14539	15	18.114	12.690	14613	8	7.301	15.820	14687	43	10.084	18.926
14392	19	12.404	6.276	14466	16	15.914	9.016	14540	26	19.095	12.250	14614	8	8.900	15.590	14688	8	10.774	18.784
14393	19	14.214	6.652	14467	16	17.000	9.141	14541	24	19.632	12.736	14615	21	9.146	15.254	14689	8	10.995	18.447
14394	21	16.106	6.666	14468	31	17.355	9.182	14542	29	19.863	12.042	14616	18	9.986	15.395	14690*	47	12.831	18.158
14395	22	17.068	6.500	14469	25	17.545	9.003	14543	8	20.073	12.234	14617	20	11.895	15.644	14691	15	13.247	18.776
14396	29	17.388	6.204	14470	20	17.826	9.203	14544	11	21.116	12.390	14618	21	14.019	15.341	14692*	65	14.786	18.076
14397	24	20.336	6.426	14471	13	21.816	9.832	14545*	44	21.139	12.324	14619	25	15.784	15.422	14693	24	17.514	18.674
14398	31	22.224	6.424	14472	10	21.853	9.190	14546	11	24.635	12.366	14620	18	15.808	15.696	14694*	63	19.425	18.864
14399	37	22.845	6.051	14473	9	23.578	9.103	14547	8	25.238	12.026	14621	10	16.366	15.891	14695	10	19.686	18.141
14400	19	24.434	6.557	14474	8	23.851	9.831	14548	8	25.457	12.554	14622	8	17.122	15.806	14696	8	21.988	18.298
14401	27	25.726	6.270	14475	22	24.588	9.444	14549	9	25.664	12.835	14623	13	17.708	15.684	14697	36	22.560	18.036
14402	38	0.436	7.235	14476	12	24.596	9.136	14550	27	25.734	12.242	14624	8	18.378	15.736	14698	24	25.894	18.192
14403	40	1.667	7.078	14477	13	2.428	10.018	14551	24	1.904	13.208	14625	14	18.555	15.544	14699*	60	3.116	19.004
14404	13	2.296	7.522	14478	30	5.464	10.334	14552	8	3.886	13.261	14626	13	19.735	15.245	14700	19	5.940	19.292
14405	21	3.204	7.181	14479	8	7.485	10.126	14553	12	4.868	13.368	14627	14	23.324	15.530	14701	10	6.199	19.222
14406	21	6.503	7.225	14480	10	8.504	10.156	14554	31	6.560</									



14714	40	21.124	19.386	14788	23	5.915	23.766	14955	12	23.250	1.432	15029	8	23.303	3.665
14715	19	21.558	19.692	14789	18	7.022	23.118	14956	9	23.658	1.602	15030	27	23.888	3.356
14716	36	21.730	19.224	14790	9	8.364	23.722	14957	38	25.943	1.222	15031	21	24.974	3.660
14717	20	22.698	19.208	14791	21	9.626	23.115	14958	23	2.929	2.836	15032	20	0.284	4.482
14718	24	24.546	19.266	14792	16	9.750	23.785	14959	8	4.566	2.216	15033	26	0.393	4.563
14719	9	25.198	19.888	14793	42	9.886	23.819	14960	23	4.840	2.646	15034	8	0.960	4.244
14720	20	1.094	20.727	14794	41	10.730	23.302	14961	13	5.854	2.094	15035*	41	2.777	4.820
14721	39	1.538	20.177	14795	18	11.501	23.916	14962	8	6.175	2.196	15036	20	3.710	4.030
14722	22	2.346	20.408	14796	17	11.702	23.666	14963	8	7.370	2.084	15037	8	4.072	4.770
14723	20	2.668	10.471	14797	17	12.286	23.226	14964	28	8.316	2.297	15038	10	4.721	4.950
14724	37	3.058	20.466	14798	14	12.298	23.015	14965	16	9.236	2.500	15039	20	6.849	4.493
14725	32	5.414	20.100	14799	8	13.174	23.564	14966	34	10.675	2.075	15040	8	7.054	4.447
14726	19	6.740	20.462	14800	27	13.550	23.050	14967	26	10.944	2.720	15041	13	7.130	4.784
14727	15	8.000	20.520	14801	14	14.062	23.546	14968	33	11.405	2.391	15042	8	8.729	4.791
14728	20	8.794	20.971	14802	31	17.248	23.222	14969	8	11.927	2.122	15043	10	8.984	4.127
14729	16	9.002	20.986	14803	10	18.434	23.163	14970	12	12.676	2.778	15044	15	10.494	4.934
14730	15	9.250	20.426	14804	33	18.694	23.410	14971	14	12.800	2.625	15045	16	10.614	4.982
14731	19	9.864	20.494	14805	18	20.942	23.017	14972	11	12.967	2.414	15046	8	11.626	4.356
14732	8	10.098	20.924	14806	8	21.525	23.771	14973*	60	13.625	2.794	15047	8	11.697	4.414
14733	29	10.549	20.385	14807	17	21.616	23.642	14974	12	14.210	2.655	15048	13	12.609	4.309
14734	20	10.832	20.532	14808	20	21.694	23.490	14975	15	14.286	2.294	15049	9	13.035	4.674
14735	20	15.801	20.116	14809	32	22.910	23.782	14976	8	14.518	2.618	15050	10	13.617	4.536
14736	16	17.008	20.386	14810	36	23.914	23.895	14977	19	14.741	2.627	15051	9	13.991	4.194
14737*	61	17.856	20.620	14811	10	24.025	23.872	14978	8	14.764	2.426	15052	16	14.275	4.196
14738	11	18.056	20.088	14812	22	24.623	23.852	14979	8	15.534	2.706	15053	11	14.420	4.898
14739	23	18.443	20.983	14813	20	1.213	24.309	14980	12	16.556	2.996	15054	20	14.535	4.601
14740	37	19.564	20.550	14814	35	2.688	24.316	14981	8	16.684	2.880	15055	25	15.562	4.027
14741	20	22.002	20.406	14815	37	4.476	24.060	14982	9	16.699	2.736	15056	21	16.587	4.582
14742	11	23.096	20.390	14816	8	4.724	24.916	14983	11	16.846	2.113	15057	8	16.700	4.267
14743	10	23.290	20.494	14817	16	5.098	24.947	14984	14	18.595	2.105	15058	30	17.884	4.591
14744	25	23.964	20.679	14818	18	6.538	24.854	14985	8	18.724	2.554	15059	8	19.896	4.374
14745	13	0.763	21.219	14819	31	6.953	24.440	14986	13	18.884	2.586	15060	18	20.170	4.545
14746	44	2.255	21.829	14820	12	7.866	24.340	14987	17	18.890	2.576	15061	20	20.236	4.132
14747	12	6.386	21.223	14821	12	9.104	24.644	14988	24	20.904	2.424	15062	17	20.725	4.292
14748	13	6.686	21.294	14822	17	9.136	24.913	14989	21	21.016	2.126	15063	36	20.916	4.832
14749	15	7.696	21.076	14823	25	12.174	24.526	14990	8	25.293	2.014	15064	10	21.024	4.524
14750	20	7.855	21.362	14824	33	12.467	24.414	14991	25	25.652	2.596	15065	10	21.654	4.246
14751	31	8.446	21.007	14825	11	12.474	24.481	14992	21	25.815	2.565	15066	36	22.899	4.218
14752	49	8.530	21.288	14826	26	12.577	24.367	14993	9	0.100	3.740	15067	26	23.594	4.896
14753	17	9.378	21.224	14827	10	12.736	24.704	14994	48	0.424	3.409	15068	8	23.615	4.957
14754	41	9.978	21.714	14828	23	12.752	24.662	14995	19	1.134	3.975	15069	20	25.164	4.709
14755	12	10.902	21.618	14829	30	14.966	24.924	14996	11	1.282	3.409	15070	15	25.304	4.374
14756	18	12.747	21.018	14830	13	15.400	24.376	14997	9	4.440	3.120	15071	8	1.554	5.750
14757	18	13.040	21.038	14831	20	15.448	24.158	14998	8	5.934	3.400	15072	13	1.950	5.618
14758	10	13.228	21.701	14832	22	15.625	24.136	14999	14	6.004	3.670	15073	8	4.404	5.963
14759	16	15.214	21.550	14833*	42	17.912	24.020	15000	12	6.664	3.996	15074	32	6.326	5.547
14760	20	15.248	21.124	14834	35	21.618	24.798	15001	16	7.292	3.058	15075	8	7.272	5.461
14761	38	16.288	21.840	14835	18	21.786	24.769	15002	21	7.527	3.490	15076	36	7.716	5.640
14762	8	17.667	21.764	14836	35	22.696	24.808	15003	26	7.739	3.396	15077	9	9.004	5.944
14763	41	21.524	21.102	14837	21	24.098	24.200	15004	18	8.305	3.711	15078	28	9.576	5.082
14764	21	24.332	21.825	14838	11	24.788	24.234	15005	20	9.384	3.346	15079	20	12.097	5.496
14765	21	24.795	21.116	14839	12	1.661	25.406	15006	8	9.518	3.514	15080	13	12.890	5.006
14766	19	25.953	21.539	14840	39	2.184	25.766	15007	21	9.904	3.156	15081	40	14.434	5.558
14767*	63	6.275	22.272	14841	13	6.626	25.561	15008	26	11.515	3.892	15082*	56	14.906	5.586
14768*	75	7.692	22.405	14842	21	7.310	25.092	15009	11	11.776	3.264	15083	10	15.402	5.908
14769	13	8.324	22.382	14843	36	7.476	25.730	15010	16	12.106	3.610	15084	18	16.042	5.607
14770	13	11.298	22.230	14844	22	9.642	25.946	15011	19	12.683	3.802	15085	18	16.526	5.199
14771	14	14.098	22.014	14845	19	12.804	25.760	15012	21	13.366	3.568	15086	20	16.694	5.880
14772	28	14.147	22.839	14846	15	13.125	25.160	15013	8	14.840	3.762	15087*	50	16.957	5.395
14773	8	14.487	22.297	14847	17	14.856	25.411	15014*	41	15.362	3.515	15088	8	17.500	5.348
14774	21	15.036	22.064	14848	11	17.202	25.476	15015	31	15.626	3.338	15089	8	17.786	5.852
14775	9	15.420	22.594	14849	21	17.610	25.936	15016	18	15.724	3.184	15090	8	17.800	5.982
14776	11	15.696	22.210	14850	41	18.402	25.560	15017	21	16.192	3.062	15091	30	18.480	5.914
14777	26	20.318	22.322	14851	25	18.744	25.490	15018	27	16.553	3.516	15092	8	19.806	5.910
14778	9	20.434	22.562	14852	11	21.736	25.090	15019*	51	16.734	3.908	15093	9	20.200	5.180
14779	24	21.638	22.607	14853	25	22.215	25.784	15020	29	18.028	3.840	15094	8	20.316	5.766
14780	22	23.456	22.880	14854	20	25.666	25.087	15021	33	18.055	3.295	15095	10	21.354	5.962
14781	19	23.493	22.778					15022	8	18.176	3.092	15096	8	21.396	5.525
14782	20	24.028	22.794					15023	9	19.656	3.168	15097	8	22.870	5.057
14783	12	24.385	22.825					15024	8	20.140	3.112	15098	10	22.896	5.333
14784	18	25.142	22.615					15025	23	21.490	3.264	15099*	33	23.458	5.684
14785	16	0.689	23.778					15026	11	21.808	3.859	15100	40	25.272	5.523
14786	25	1.576	23.724					15027	11	22.004	3.335	15101	31	0.212	6.086
14787	13	3.152	23.026					15028	9	22.185	3.915	15102	8	1.452	6.594



15103	15	1.806	6.584	15177	8	14.435	7.830	15251	8	2.671	9.582	15325	32	22.604	10.915	15399	11	15.568	12.267
15104	27	3.100	6.294	15178	23	14.440	7.528	15252	25	3.534	9.620	15326	31	22.636	10.590	15400*	30	15.958	12.334
15105	16	5.050	6.716	15179	9	14.617	7.963	15253	10	4.292	9.522	15327	11	23.325	10.982	15401	19	16.306	12.370
15106	22	5.084	6.886	15180	8	14.763	7.466	15254	21	6.736	9.630	15328	11	24.771	10.121	15402	26	16.941	12.030
15107	10	5.485	6.904	15181*	49	15.853	7.618	15255	25	7.320	9.985	15329	23	25.734	10.680	15403	23	17.335	12.914
15108	8	5.556	6.946	15182	21	16.590	7.552	15256	18	7.416	9.500	15330	10	0.124	11.676	15404	12	17.430	12.104
15109	8	5.914	6.354	15183	26	16.692	7.934	15257	16	7.561	9.878	15331	9	0.534	11.996	15405	13	18.327	12.992
15110	11	6.296	6.497	15184	24	16.697	7.788	15258	24	7.678	9.970	15332	8	0.795	11.123	15406	15	18.555	12.217
15111	35	6.984	6.273	15185	26	16.874	7.966	15259	8	7.690	9.640	15333	8	0.833	11.232	15407	12	19.545	12.409
15112	20	8.869	6.856	15186	8	17.068	7.539	15260	14	9.407	9.830	15334*	39	1.144	11.824	15408	36	19.789	12.357
15113	12	8.946	6.036	15187	14	17.394	7.524	15261	23	9.706	9.120	15335	8	1.532	11.166	15409	12	20.296	12.548
15114	10	8.974	6.076	15188	9	17.544	7.766	15262	20	10.335	9.466	15336	21	4.098	11.534	15410	8	21.375	12.900
15115	28	9.148	6.422	15189	23	17.840	7.026	15263	23	10.595	9.569	15337	10	4.694	11.668	15411*	29	21.451	12.833
15116	9	10.006	6.578	15190	8	20.500	7.042	15264	21	10.776	9.304	15338	8	5.688	11.688	15412	20	23.163	12.654
15117	17	10.636	6.001	15191	16	20.580	7.396	15265	13	11.236	9.568	15339	23	6.072	11.834	15413	10	23.494	12.836
15118	41	10.904	6.239	15192	20	20.700	7.405	15266	21	12.914	9.084	15340	10	6.326	11.472	15414	10	23.573	12.439
15119	8	11.492	6.080	15193	20	21.414	7.594	15267	9	13.136	9.991	15341	14	6.667	11.564	15415	25	23.905	12.364
15120	11	11.774	6.866	15194	8	21.564	7.918	15268	12	13.692	9.546	15342	11	6.780	11.438	15416	20	24.246	12.680
15121	22	12.026	6.536	15195*	44	21.714	7.736	15269	20	14.264	9.834	15343*	51	7.564	11.124	15417*	30	1.494	13.334
15122	9	12.123	6.454	15196	8	22.174	7.564	15270	8	14.580	9.126	15344	9	10.058	11.775	15418	18	2.889	13.104
15123	9	14.153	6.099	15197	10	23.115	7.809	15271	40	14.872	9.100	15345	32	10.297	11.609	15419	10	3.878	13.406
15124	21	14.223	6.590	15198	8	23.232	7.240	15272	15	15.765	9.886	15346	21	10.645	11.998	15420	14	4.092	13.378
15125	42	14.233	6.008	15199	8	23.406	7.532	15273	13	16.000	9.428	15347	12	10.905	11.434	15421	8	5.998	13.119
15126	22	14.248	6.356	15200	8	23.978	7.450	15274	10	16.366	9.606	15348	10	11.685	11.574	15422	27	7.266	13.870
15127	8	14.442	6.878	15201	12	25.064	7.195	15275	19	16.485	9.824	15349	23	11.986	11.246	15423	9	7.545	13.918
15128	16	14.523	6.066	15202	15	25.084	7.602	15276	8	16.804	9.488	15350	8	12.038	11.102	15424	15	9.130	13.640
15129	27	14.946	6.126	15203	14	25.478	7.700	15277	13	17.814	9.548	15351	26	13.474	11.666	15425	20	10.994	13.988
15130*	40	15.046	6.924	15204	9	0.008	8.313	15278	8	18.306	9.048	15352	8	13.498	11.446	15426	8	13.805	13.356
15131	8	15.235	6.954	15205	37	4.383	8.877	15279	21	19.408	9.651	15353*	46	13.878	11.827	15427	8	13.932	13.348
15132	20	15.248	6.904	15206*	54	5.950	8.925	15280*	42	19.864	9.481	15354	12	14.229	11.985	15428	20	13.988	13.843
15133	16	15.305	6.524	15207	26	6.214	8.027	15281*	35	20.484	9.222	15355	8	14.635	11.434	15429	21	15.773	13.792
15134	22	16.140	6.130	15208	16	6.426	8.050	15282	10	20.666	9.568	15356	15	16.532	11.492	15430	16	16.381	13.784
15135*	52	16.270	6.532	15209	8	6.460	8.996	15283	20	20.937	9.495	15357	8	16.696	11.975	15431	8	16.650	13.540
15136	14	16.588	6.494	15210	14	7.108	8.232	15284	19	21.906	9.453	15358	35	16.714	11.811	15432*	43	17.704	13.746
15137	22	16.983	6.813	15211	8	7.362	8.008	15285	31	22.376	9.592	15359	13	17.396	11.988	15433	14	18.064	13.429
15138	8	17.614	6.724	15212	13	7.554	8.451	15286	20	24.363	9.988	15360	16	17.758	11.333	15434	38	19.630	13.430
15139	8	17.906	6.549	15213	37	8.766	8.248	15287	26	25.776	9.217	15361	8	17.810	11.432	15435	16	19.886	13.050
15140	8	17.952	6.978	15214	40	8.864	8.384	15288	9	1.248	10.489	15362	8	18.051	11.768	15436	8	20.030	13.820
15141	8	18.224	6.134	15215	12	9.164	8.816	15289	20	1.458	10.974	15363	14	18.649	11.002	15437	25	21.276	13.518
15142	20	18.348	6.464	15216	33	9.370	8.642	15290	11	1.562	10.856	15364	11	19.908	11.887	15438	11	22.318	13.335
15143	20	19.706	6.795	15217	8	9.434	8.916	15291	8	2.496	10.695	15365	9	20.312	11.937	15439	9	24.095	13.226
15144	8	19.968	6.186	15218*	41	10.081	8.567	15292	18	2.859	10.445	15366	18	20.531	11.494	15440	11	24.971	13.000
15145	9	20.151	6.173	15219	13	10.544	8.358	15293	27	3.082	10.507	15367	21	20.882	11.974	15441	13	25.324	13.600
15146	35	20.396	6.464	15220	10	11.536	8.256	15294	16	6.135	10.430	15368	16	22.164	11.900	15442	13	25.457	13.642
15147	8	21.692	6.076	15221	24	11.965	8.565	15295	12	6.313	10.226	15369	11	2.030	12.395	15443	11	1.503	14.372
15148*	38	22.644	6.154	15222	14	12.094	8.866	15296	23	7.494	10.812	15370	11	2.854	12.580	15444	10	2.399	14.746
15149	18	22.955	6.312	15223	23	12.224	8.134	15297	13	7.818	10.190	15371	9	3.065	12.856	15445	8	2.435	14.512
15150	37	0.054	7.560	15224	20	13.020	8.984	15298	12	7.934	10.174	15372	30	3.126	12.265	15446	17	3.332	14.238
15151	10	2.396	7.870	15225	8	13.524	8.820	15299	19	8.827	10.780	15373*	21	3.442	12.863	15447	11	4.065	14.046
15152	14	4.324	7.289	15226	12	14.862	8.816	15300	13	9.206	10.462	15374	8	4.378	12.906	15448	8	6.317	14.650
15153	8	5.377	7.797	15227	24	14.866	8.106	15301	16	9.952	10.335	15375	8	4.751	12.126	15449	11	6.359	14.712
15154*	42	5.666	7.296	15228	8	15.396	8.116	15302	15	10.208	10.762	15376	22	4.823	12.834	15450	8	6.602	14.367
15155	20	6.170	7.355	15229	12	16.757	8.903	15303*	49	11.381	10.057	15377*	46	5.087	12.208	15451	33	6.806	14.078
15156	9	6.670	7.783	15230	12	17.622	8.746	15304	12	12.326	10.690	15378	11	5.088	12.664	15452	10	6.822	14.466
15157	19	6.777	7.295	15231	15	18.115	8.669	15305	36	12.696	10.908	15379	34	5.618	12.596	15453	22	6.870	14.540
15158	15	7.372	7.524	15232	15	18.396	8.094	15306	8	13.051	10.858	15380	10	5.808	12.270	15454	8	7.632	14.678
15159	19	7.628	7.291	15233	16	19.310	8.203	15307	38	13.336	10.290	15381	8	6.108	12.160	15455	29	8.964	14.174
15160	20	7.786	7.515	15234*	46	19.549	8.218	15308	8	14.018	10.968	15382	14	6.566	12.906	15456	17	9.358	14.592
15161	8	7.844	7.344	15235	40	19.579	8.982	15309	19	14.184	10.936	15383	8	7.274	12.444	15457	17	9.372	14.956
15162	11	7.916	7.401	15236	27	19.694	8.753	15310	10	14.249	10.816	15384	22	7.818	12.026	15458	8	9.426	14.906
15163	15	7.964	7.392	15237	10	20.029	8.090	15311	10	14.682	10.006	15385	17	8.468	12.363	15459	20	9.685	14.420
15164*	61	8.026	7.760	15238	19	21.714	8.776	15312	30	14.810	10.884	15386	19	11.840	12.779	15460	11	10.256	14.256
15165	17	8.056	7.760	15239	8	21.850	8.088	15313	9	15.214	10.992	15387	8	12.326	12.278	15461	8	11.308	14.826



15473	8	18.552	14.112	15547	18	0.894	16.689	15621	38	18.104	17.962	15695	11	13.698	19.185	15769	8	2.502	21.766
15474	10	18.924	14.988	15548	20	4.297	16.177	15622	20	18.165	17.783	15696	22	13.774	19.312	15770	20	3.384	21.564
15475	8	19.694	14.794	15549	9	6.065	16.756	15623	15	18.650	17.486	15697	20	13.806	19.342	15771	8	4.602	21.880
15476	8	19.962	14.624	15550	31	7.514	16.764	15624	19	18.814	17.033	15698	24	14.829	19.178	15772	33	5.345	21.024
15477	14	20.214	14.650	15551	14	7.774	16.222	15625	14	19.205	17.900	15699	11	16.354	19.843	15773	28	5.786	21.976
15478	8	20.969	14.604	15552	28	8.200	16.310	15626	9	19.314	17.756	15700	14	16.514	19.516	15774	25	7.484	21.164
15479	11	21.224	14.466	15553	8	8.745	16.474	15627	24	19.589	17.766	15701	19	16.586	19.044	15775	20	8.968	21.320
15480	24	22.424	14.435	15554	22	9.118	16.627	15628	8	20.776	17.260	15702	17	16.838	19.792	15776	8	9.580	21.228
15481	8	22.515	14.737	15555	9	10.602	16.146	15629	16	21.049	17.908	15703	20	17.512	19.888	15777	17	9.700	21.230
15482	22	22.636	14.450	15556	17	10.783	16.699	15630*	44	23.026	17.764	15704*	38	18.382	19.698	15778	12	9.893	21.366
15483	8	23.238	14.791	15557*	39	10.966	16.882	15631	12	23.324	17.843	15705	12	18.429	19.440	15779	19	10.130	21.216
15484	8	23.768	14.524	15558	8	11.396	16.964	15632	8	23.438	17.218	15706	24	18.633	19.815	15780	8	10.344	21.104
15485	20	24.454	14.421	15559	24	11.652	16.446	15633	8	23.680	17.960	15707	11	20.223	19.576	15781	20	11.066	21.716
15486	37	25.176	14.356	15560*	38	11.764	16.418	15634*	43	23.916	17.740	15708	8	20.552	19.084	15782	12	11.309	21.216
15487	16	25.849	14.972	15561*	55	12.926	16.066	15635	34	25.089	17.036	15709	15	21.580	19.558	15783	8	14.654	21.574
15488	11	0.729	15.565	15562	24	13.529	16.564	15636	26	3.311	18.216	15710	13	21.974	19.055	15784	14	14.709	21.182
15489	8	2.363	15.624	15563	14	13.719	16.864	15637*	73	5.705	18.925	15711	10	22.143	19.907	15785	8	14.756	21.364
15490*	40	3.556	15.998	15564	8	15.046	16.748	15638	12	5.756	18.656	15712	14	22.168	19.312	15786	10	15.288	21.604
15491	9	3.730	15.756	15565	41	15.296	16.754	15639	8	6.372	18.210	15713	8	22.268	19.647	15787	12	15.357	21.608
15492	15	4.358	15.522	15566	11	16.964	16.798	15640	40	6.735	18.014	15714	10	22.444	19.266	15788	22	16.074	21.144
15493	19	4.851	15.050	15567	22	17.436	16.012	15641	13	6.958	18.056	15715	20	23.114	19.014	15789	14	16.677	21.247
15494	18	5.789	15.253	15568	8	17.546	16.397	15642	8	7.106	18.062	15716	16	23.682	19.634	15790	10	17.814	21.459
15495*	44	5.824	15.512	15569	12	19.434	16.836	15643	33	7.344	18.487	15717*	46	24.322	19.074	15791	16	20.055	21.261
15496	17	5.844	15.891	15570	11	19.553	16.660	15644	9	7.663	18.336	15718	20	24.407	19.219	15792	12	20.210	21.568
15497	40	5.978	15.338	15571	11	19.586	16.344	15645*	65	7.768	18.164	15719	28	24.470	19.541	15793	17	20.394	21.884
15498	11	6.112	15.866	15572	15	19.664	16.014	15646	15	7.850	18.276	15720	13	0.521	20.424	15794	20	21.535	21.388
15499	8	6.240	15.380	15573	14	19.904	16.994	15647	23	8.078	18.026	15721	11	0.721	20.524	15795	8	22.652	21.940
15500	20	6.304	15.960	15574	15	20.024	16.120	15648	10	8.209	18.631	15722	25	1.389	20.709	15796	16	22.844	21.105
15501	12	6.830	15.306	15575	20	20.214	16.855	15649*	41	8.796	18.452	15723	8	2.910	20.556	15797	30	22.994	21.414
15502	14	7.296	15.950	15576	8	20.764	16.800	15650	18	9.052	18.186	15724	8	3.519	20.964	15798	24	23.044	21.616
15503	38	7.386	15.705	15577	23	20.815	16.110	15651	29	9.190	18.119	15725	15	3.668	20.403	15799	22	23.873	21.208
15504	14	7.435	15.212	15578	12	21.500	16.396	15652	8	10.064	18.708	15726	11	4.102	20.539	15800	19	24.108	21.980
15505	22	10.140	15.276	15579	23	22.842	16.126	15653	14	10.997	18.715	15727	8	4.688	20.719	15801	8	24.203	21.376
15506	13	10.657	15.272	15580	18	23.256	16.442	15654	9	11.151	18.275	15728	8	4.890	20.216	15802	20	0.894	22.910
15507	38	11.206	15.163	15581	8	23.486	16.845	15655	17	11.872	18.077	15729	13	5.045	20.244	15803	20	0.934	22.810
15508	28	11.314	15.520	15582	19	23.564	16.121	15656	39	12.310	18.301	15730	20	5.187	20.720	15804	20	1.466	22.827
15509	8	11.457	15.399	15583	13	25.154	16.804	15657	26	12.344	18.265	15731	26	5.398	20.439	15805	17	1.826	22.856
15510	16	11.590	15.270	15584	11	25.236	16.190	15658	17	13.016	18.456	15732	22	6.288	20.896	15806	21	2.576	22.642
15511	31	11.805	15.968	15585	16	25.780	16.500	15659	15	13.034	18.582	15733	22	6.698	20.326	15807	8	2.931	22.091
15512	40	11.895	15.684	15586	31	25.808	16.288	15660	34	14.626	18.714	15734	16	7.442	20.274	15808	41	4.676	22.178
15513	8	12.680	15.059	15587	15	0.416	17.085	15661*	52	14.659	18.433	15735	29	7.650	20.514	15809	24	5.108	22.432
15514	14	12.756	15.552	15588	14	2.374	17.472	15662	29	14.906	18.316	15736*	39	7.670	20.516	15810	18	5.620	22.332
15515	13	13.304	15.998	15589	8	2.824	17.626	15663	19	15.136	18.711	15737	11	9.664	20.474	15811	11	5.732	22.979
15516	8	13.440	15.321	15590	21	3.085	17.944	15664	28	15.802	18.476	15738	26	9.895	20.144	15812	22	5.824	22.770
15517	14	13.926	15.544	15591	9	3.156	17.724	15665	24	15.854	18.226	15739	31	11.968	20.784	15813	10	6.336	22.124
15518	32	13.970	15.485	15592	8	5.621	17.935	15666	21	16.219	18.284	15740	10	12.333	20.678	15814	16	9.512	22.521
15519	12	14.104	15.950	15593	8	6.186	17.132	15667	15	16.608	18.402	15741	8	12.635	20.558	15815	33	11.326	22.452
15520	9	14.986	15.856	15594	16	7.082	17.449	15668	25	16.916	18.485	15742*	54	13.782	20.411	15816	8	11.440	22.894
15521	17	15.022	15.834	15595	18	7.704	17.816	15669	12	16.942	18.151	15743	8	14.024	20.062	15817	20	13.264	22.987
15522	20	15.806	15.821	15596	20	7.723	17.194	15670	9	17.776	18.102	15744	29	15.104	20.002	15818	8	13.484	22.776
15523	30	15.993	15.855	15597	22	7.848	17.084	15671	20	18.400	18.158	15745	31	15.374	20.869	15819	27	14.033	22.036
15524	40	16.107	15.372	15598	8	7.913	17.716	15672	20	18.486	18.974	15746	8	15.810	20.841	15820	8	14.678	22.572
15525	8	16.276	15.996	15599	30	8.288	17.129	15673	12	19.265	18.364	15747	8	16.774	20.097	15821	15	16.777	22.303
15526	10	17.034	15.954	15600	8	9.292	17.384	15674	23	19.776	18.201	15748	26	16.821	20.973	15822	8	17.014	22.288
15527	11	17.546	15.326	15601	17	9.416	17.233	15675*	40	19.960	18.491	15749	26	16.952	20.932	15823	9	18.827	22.033
15528	21	17.657	15.359	15602	21	9.761	17.840	15676	28	22.780	18.802	15750	20	17.004	20.930	15824	12	18.842	22.567
15529	24	17.844	15.294	15603	8	9.868	17.854	15677	9	24.404	18.052	15751	8	18.789	20.080	15825	17	19.684	22.683
15530	20	17.850	15.030	15604	8	11.079	17.584	15678*	47	24.464	18.666	15752	13	18.885	20.132	15826	14	20.055	22.284
15531	8	19.950	15.450	15605	10	11.603	17.001	15679	20	24.511	18.610	15753	36	18.904	20.704	15827	8	20.908	22.036
15532	19	20.144	15.856	15606	22	12.202	17.916	15680	12	24.584	18.960	15754	35	19.917	20.995	15828	12	21.560	22.594
15533	31	20.265	15.664	15607	22	12.636	17.832	15681	28	25.392	18.850	15755	26	20.118	20.609	15829	19	21.984	22.274
15534	11	20.644	15.586	15608	16	13.272	17.871	15682	16	0.120	19.244	15756	20	21.235	20.399	15830	10	22.510	22.252



15843	12	5.377	23.522	15917	11	16.174	25.484	15991	12	0.847	1.652	16065	10	0.536	3.726	16139	8	22.824	4.048
15844	12	6.959	23.368	15918	10	16.234	25.794	15992*	43	3.124	1.224	16066	26	1.113	3.404	16140	8	23.814	4.223
15845	17	7.670	23.211	15919	9	18.145	25.740	15993	8	3.232	1.332	16067	22	2.206	3.683	16141	28	25.516	4.442
15846	13	7.816	23.099	15920	18	18.418	25.742	15994	8	3.305	1.079	16068	21	3.314	3.130	16142*	31	0.735	5.738
15847	12	9.818	23.174	15921	8	18.424	25.064	15995*	45	5.290	1.337	16069	11	3.644	3.729	16143	8	0.742	5.360
15848	11	10.102	23.702	15922	27	22.046	25.001	15996	34	5.464	1.674	16070	16	3.665	3.167	16144	8	0.975	5.198
15849	16	10.118	23.096	15923	60	25.241	25.141	15997	16	5.762	1.515	16071	10	4.800	3.367	16145*	43	2.541	5.536
15850	20	10.230	23.146	15924	16	25.905	25.409	15998	8	6.115	1.234	16072	21	4.822	3.438	16146	10	3.840	5.645
15851	40	10.326	23.566					15999	22	6.486	1.424	16073	15	6.742	3.580	16147	23	4.395	5.278
15852	35	10.728	23.959					16000	15	6.526	1.212	16074	20	8.976	3.216	16148	14	4.714	5.576
15853	22	11.470	23.834					16001	23	7.158	1.802	16075	20	9.186	3.639	16149	20	5.495	5.557
15854	13	13.046	23.658					16002	8	7.186	1.055	16076	9	9.455	3.864	16150	22	5.650	5.812
15855	8	13.664	23.138					16003	19	7.289	1.214	16077	16	9.466	3.588	16151	8	6.038	5.046
15856	16	14.316	23.914					16004	8	7.434	1.432	16078	14	9.822	3.634	16152	8	7.706	5.298
15857	10	15.180	23.035					16005	20	7.784	1.190	16079	12	11.434	3.215	16153	9	8.590	5.707
15858	37	15.342	23.494					16006	10	8.094	1.694	16080	8	13.321	3.026	16154	17	8.708	5.745
15859	20	15.945	23.374					16007	19	8.500	1.166	16081	12	13.556	3.686	16155	9	8.912	5.334
15860	12	16.479	23.119					16008	8	8.787	1.631	16082	8	13.556	3.797	16156	8	11.088	5.748
15861	11	18.541	23.129					16009	10	9.366	1.375	16083	36	13.726	3.740	16157	16	11.368	5.265
15862	8	18.865	23.729					16010	10	13.178	1.666	16084	8	16.016	3.884	16158	10	11.874	5.644
15863	8	19.926	23.567					16011*	41	13.301	1.644	16085	11	16.078	3.081	16159	14	12.023	5.784
15864	40	20.660	23.236					16012	21	14.127	1.246	16086*	41	16.102	3.067	16160	14	12.976	5.126
15865	8	21.396	23.766					16013	8	17.464	1.126	16087	8	17.547	3.280	16161	20	13.059	5.191
15866	28	22.396	23.794					16014	13	17.628	1.438	16088	12	18.405	3.660	16162	20	13.137	5.218
15867	8	22.756	23.575					16015	18	17.924	1.110	16089	8	18.487	3.117	16163	21	14.338	5.058
15868	24	23.986	23.387					16016	21	18.056	1.298	16090	11	19.032	3.792	16164	17	15.574	5.415
15869*	60	24.326	23.036					16017	11	19.097	1.619	16091	9	19.588	3.484	16165	9	16.534	5.298
15870	19	24.506	23.171					16018	21	20.420	1.196	16092	17	19.655	3.534	16166	8	17.511	5.190
15871	8	25.964	23.028					16019	16	21.238	1.150	16093	8	19.901	3.203	16167	10	18.035	5.168
15872	32	0.144	24.844					16020	13	21.370	1.070	16094	21	20.080	3.290	16168	9	19.543	5.312
15873	22	1.544	24.229					16021	8	21.415	1.726	16095	8	20.355	3.105	16169	8	19.624	5.706
15874	11	2.237	24.260					16022*	80	22.280	1.766	16096	8	20.524	3.656	16170	9	19.953	5.299
15875	8	3.258	24.376					16023	9	22.424	1.536	16097	13	20.744	3.856	16171	10	20.016	5.246
15876	22	4.476	24.232					16024	20	22.960	1.440	16098	9	20.786	3.025	16172	16	20.098	5.315
15877*	41	4.808	24.686					16025	8	24.008	1.968	16099	8	21.255	3.629	16173	10	20.106	5.838
15878	10	6.674	24.979					16026	8	2.496	2.026	16100	10	21.728	3.780	16174	28	20.112	5.944
15879	19	6.690	24.644					16027	25	2.858	2.605	16101	8	22.227	3.275	16175	9	20.244	5.934
15880	19	8.989	24.446					16028	21	3.026	2.570	16102	9	24.325	3.625	16176	31	20.620	5.774
15881	15	9.276	24.116					16029	10	3.134	2.846	16103	8	25.758	3.944	16177	29	21.201	5.986
15882	20	10.246	24.477					16030	22	3.824	2.642	16104	31	0.139	4.286	16178	16	21.248	5.746
15883	33	10.794	24.826					16031*	90	4.210	2.124	16105	27	0.850	4.952	16179	8	21.347	5.042
15884	8	13.196	24.734					16032	14	4.315	2.144	16106	8	1.890	4.158	16180	22	21.382	5.488
15885	10	13.470	24.278					16033	16	4.366	2.553	16107	22	2.418	4.726	16181	19	23.467	5.413
15886	22	14.200	24.360					16034*	75	5.110	2.106	16108	17	2.554	4.388	16182	9	24.330	5.546
15887	39	14.892	24.265					16035	38	5.850	2.200	16109	14	3.276	4.170	16183	8	24.446	5.701
15888	8	18.054	24.151					16036	21	6.384	2.065	16110	10	3.474	4.695	16184	14	0.244	6.382
15889	36	18.344	24.291					16037	21	6.808	2.746	16111	22	3.518	4.938	16185	9	2.934	6.008
15890	32	18.509	24.423					16038	21	7.054	2.362	16112	11	4.532	4.786	16186	8	4.550	6.698
15891	8	18.817	24.401					16039	8	7.961	2.566	16113	8	4.973	4.874	16187	13	5.134	6.461
15892	8	19.704	24.235					16040	8	8.525	2.078	16114	8	5.284	4.928	16188	11	5.190	6.931
15893	20	20.464	24.409					16041	8	8.596	2.226	16115	9	5.446	4.517	16189	24	5.762	6.213
15894	23	21.391	24.385					16042	8	9.499	2.739	16116	10	5.554	4.854	16190	8	5.876	6.447
15895	8	23.158	24.566					16043	21	11.727	2.066	16117	8	5.716	4.550	16191	9	6.098	6.014
15896	21	23.343	24.452					16044	8	12.303	2.554	16118	8	6.504	4.912	16192	8	6.384	6.942
15897	18	23.716	24.524					16045	8	14.266	2.536	16119	19	6.819	4.234	16193	21	8.120	6.576
15898	13	0.288	25.570					16046	10	14.636	2.826	16120	19	8.267	4.608	16194	9	8.960	6.292
15899	22	3.114	25.115					16047	25	14.838	2.330	16121	8	9.884	4.236	16195	20	9.226	6.401
15900	18	3.717	25.870					16048	8	14.884	2.277	16122	8	11.556	4.952	16196	23	9.284	6.678
15901	18	4.986	25.658					16049	11	16.123	2.044	16123	9	12.698	4.908	16197	9	11.524	6.687
15902	8	5.636	25.824					16050	8	16.777	2.428	16124	8	12.806	4.904	16198	8	12.891	6.965
15903	20	5.812	25.378					16051	20	17.684	2.596	16125	8	13.898	4.079	16199	21	12.945	6.984
15904	8	6.244	25.027					16052	9	18.693	2.504	16126	15	13.905	4.796	16200	20	12.962	6.170
15905	9	8.974	25.438					16053	8	18.800	2.216	16127	13	15.010	4.010	16201	21	13.417	6.548
15906	27	10.174	25.884					16054	8	19.200	2.364	16128	20	17.106	4.574	16202	8	13.956	6.776
15907	14	10.804	25.140					16055	8	19.252	2.386	16129	17	17.123	4.776	16203*	49	14.306	6.806
15908	16	10.845	25.028					16056	8	19.738	2.581	16130	17	17.124	4.944	16204	16	14.584	6.124
15909	8	11.636	25.234					16057	23	20.275	2.628	16131	16	18.774	4.026	16205	12	16.516	6.275
15910*	40	12.910	25.720					16058	20	20.488	2.207	16132	20	18.946	4.762	16206	4	17.474	6.605
15911	12	13.482	25.012					16059	13	22.357	2.914	16133	8	19.937	4.794	16207	24	17.485	6.145
15912	14	13.533	25.604					16060	36	22.905	2.546	16134	12	20.214	4.984	16208	14	17.515	6.976
15913																			



16213	14	19.706	6.579	16287	13	8.158	8.592	16361	8	21.445	9.149	16435	10	8.130	11.725	16509	8	23.877	12.286
16214	8	19.945	6.738	16288	19	9.136	8.526	16362	15	22.157	9.040	16436	15	8.696	11.062	16510	12	24.304	12.766
16215	10	20.364	6.458	16289	15	9.882	8.145	16363	8	22.208	9.025	16437	8	8.853	11.785	16511	23	24.474	12.884
16216	23	21.062	6.842	16290	19	10.181	8.002	16364	15	22.550	9.315	16438	10	9.295	11.062	16512	19	24.673	12.295
16217	8	21.703	6.249	16291	8	10.287	8.250	16365	20	22.684	9.888	16439	18	9.930	11.958	16513	24	25.187	12.644
16218	20	21.923	6.348	16292	8	10.786	8.185	16366	8	22.808	9.048	16440	8	10.149	11.278	16514	21	25.350	12.614
16219	22	24.689	6.532	16293	8	13.946	8.999	16367	8	23.300	9.660	16441	8	10.300	11.277	16515	13	25.436	12.648
16220	10	24.864	6.173	16294	11	14.468	8.824	16368	14	23.754	9.876	16442	8	11.050	11.338	16516	23	25.516	12.515
16221	9	25.332	6.086	16295	15	14.624	8.248	16369	9	24.337	9.605	16443	10	11.946	11.125	16517	10	25.912	12.829
16222	11	25.434	6.560	16296	8	14.892	8.155	16370	20	24.550	9.967	16444	11	12.288	11.368	16518	26	25.916	12.936
16223	35	25.512	6.108	16297	18	15.024	8.156	16371	24	25.096	9.976	16445	11	12.873	11.428	16519	11	1.534	13.266
16224	8	25.753	6.264	16298	10	15.260	8.059	16372	19	25.779	9.229	16446	8	14.035	11.878	16520	11	2.408	13.025
16225	11	0.434	7.876	16299	17	15.880	8.531	16373	28	0.018	10.664	16447	14	14.579	11.658	16521	16	2.773	13.616
16226	10	0.539	7.310	16300	10	15.985	8.105	16374	17	1.729	10.024	16448	14	15.290	11.700	16522	14	2.910	13.654
16227	8	0.722	7.592	16301	9	16.070	8.578	16375	11	2.142	10.152	16449	8	16.168	11.050	16523	22	3.774	13.455
16228	8	1.287	7.499	16302	9	17.165	8.594	16376	8	2.159	10.406	16450	12	17.179	11.055	16524	8	4.586	13.102
16229	8	1.940	7.732	16303	18	17.410	8.700	16377	21	3.118	10.688	16451	19	18.478	11.929	16525	19	4.934	13.332
16230	8	2.284	7.088	16304	21	18.066	8.683	16378	26	3.389	10.050	16452	8	18.539	11.311	16526	18	5.032	13.394
16231	11	2.372	7.216	16305	9	18.623	8.951	16379	16	3.777	10.411	16453	14	19.746	11.880	16527	21	5.533	13.901
16232	17	2.400	7.626	16306	16	19.292	8.664	16380	8	3.853	10.076	16454	10	19.760	11.646	16528	9	6.258	13.692
16233	16	2.797	7.714	16307	27	19.485	8.026	16381	9	4.079	10.320	16455	9	19.975	11.620	16529	8	7.600	13.712
16234	8	4.505	7.692	16308	34	19.561	8.864	16382*	41	4.276	10.406	16456	11	20.520	11.850	16530	16	8.870	13.240
16235	10	5.702	7.406	16309	10	19.678	8.494	16383	19	4.706	10.224	16457	8	20.558	11.444	16531	10	10.054	13.012
16236	12	7.014	7.434	16310	20	19.719	8.130	16384	10	4.999	10.110	16458	10	21.698	11.324	16532	8	10.933	13.500
16237	8	7.601	7.665	16311	8	19.738	8.095	16385	13	5.376	10.215	16459	8	22.696	11.654	16533	19	11.042	13.854
16238	11	7.711	7.914	16312	18	20.026	8.688	16386	20	6.108	10.725	16460	17	23.130	11.638	16534	8	11.590	13.442
16239	20	8.228	7.946	16313	9	20.244	8.754	16387	8	6.112	10.990	16461	10	23.135	11.847	16535	8	12.111	13.790
16240	8	8.687	7.824	16314	23	20.885	8.250	16388	8	6.953	10.153	16462	12	23.141	11.972	16536	10	12.956	13.914
16241	23	8.790	7.676	16315	19	21.356	8.024	16389	16	7.724	10.880	16463	10	23.204	11.881	16537	14	13.480	13.126
16242	23	9.039	7.830	16316	15	21.484	8.326	16390	15	8.578	10.810	16464	20	23.365	11.364	16538	8	13.543	13.581
16243	15	9.185	7.600	16317	15	21.506	8.516	16391	10	8.868	10.430	16465	11	24.325	11.558	16539	8	13.864	13.561
16244	8	10.158	7.309	16318*	34	21.992	8.484	16392	13	9.600	10.796	16466	8	24.346	11.278	16540	13	14.000	13.724
16245	20	10.644	7.618	16319	8	22.056	8.200	16393	13	9.929	10.794	16467	9	24.475	11.470	16541	21	14.004	13.646
16246	27	11.803	7.386	16320	8	22.441	8.294	16394	21	10.472	10.875	16468	28	24.490	11.877	16542	8	14.084	13.160
16247	16	12.169	7.564	16321	14	22.702	8.408	16395	31	11.130	10.480	16469	8	24.725	11.366	16543	37	14.542	13.822
16248	10	12.714	7.596	16322	14	22.897	8.546	16396	25	11.135	10.137	16470	8	24.802	11.030	16544	9	14.656	13.146
16249	8	13.045	7.406	16323	15	23.066	8.284	16397	8	12.049	10.145	16471	8	24.971	11.946	16545	8	16.566	13.631
16250	36	13.108	7.640	16324	16	23.792	8.604	16398	8	12.213	10.284	16472	8	25.031	11.849	16546	10	18.168	13.396
16251	17	15.842	7.066	16325	15	23.994	8.804	16399	13	14.138	10.798	16473	19	25.474	11.265	16547	13	18.566	13.930
16252	8	17.063	7.191	16326*	41	24.412	8.240	16400	19	15.465	10.362	16474	8	25.526	11.703	16548	9	18.654	13.680
16253*	36	17.426	7.232	16327	8	24.846	8.659	16401	13	17.328	10.356	16475	17	25.648	11.960	16549	12	19.442	13.550
16254	20	17.562	7.134	16328	10	24.990	8.760	16402	8	17.902	10.654	16476	20	25.785	11.746	16550	9	19.830	13.750
16255	12	18.188	7.950	16329	9	25.393	8.147	16403	20	19.086	10.918	16477	18	0.589	12.720	16551	8	20.114	13.212
16256	21	18.793	7.623	16330	22	25.760	8.093	16404	8	20.193	10.807	16478	8	0.924	12.891	16552	13	20.418	13.360
16257	11	19.273	7.075	16331	9	2.052	9.100	16405	8	20.405	10.016	16479	19	1.326	12.412	16553	9	20.564	13.513
16258	11	19.484	7.630	16332	21	3.129	9.224	16406	22	20.442	10.814	16480	17	1.674	12.720	16554	20	22.612	13.563
16259	13	19.606	7.198	16333	9	3.730	9.715	16407	8	20.715	10.054	16481	8	2.362	12.280	16555	8	22.725	13.440
16260	18	20.007	7.785	16334	16	3.765	9.584	16408	8	20.822	10.653	16482	8	6.393	12.282	16556	36	23.279	13.032
16261	8	20.301	7.197	16335	11	3.883	9.996	16409	9	21.260	10.275	16483	8	7.278	12.412	16557	22	24.060	13.040
16262	18	21.834	7.510	16336	11	4.584	9.740	16410	10	21.308	10.600	16484	11	8.539	12.839	16558	8	24.138	13.186
16263*	43	22.916	7.821	16337	10	4.850	9.296	16411	10	21.343	10.216	16485	10	8.843	12.400	16559	8	24.832	13.070
16264	9	23.136	7.184	16338	8	5.957	9.927	16412	12	21.655	10.029	16486	29	9.165	12.449	16560	23	25.175	13.298
16265*	56	23.453	7.418	16339	14	6.105	9.632	16413	11	22.396	10.614	16487	9	9.490	12.525	16561	17	25.972	13.599
16266	11	23.656	7.424	16340	13	6.831	9.032	16414	11	22.605	10.677	16488	9	9.684	12.392	16562	18	0.101	14.526
16267	9	23.796	7.286	16341	21	7.150	9.280	16415	8	23.806	10.376	16489	21	10.627	12.814	16563	8	0.712	14.850
16268	11	24.395	7.019	16342	8	8.064	9.252	16416	9	24.080	10.076	16490	21	11.336	12.122	16564	8	1.235	14.576
16269	8	0.395	8.489	16343	16	8.074	9.916	16417	23	24.320	10.878	16491	8	11.416	12.442	16565	17	1.922	14.456
16270	21	0.968	8.712	16344	14	8.918	9.832	16418	22	24.386	10.692	16492	21	11.532	12.835	16566	29	2.640	14.376
16271	10	1.143	8.924	16345	15	9.014	9.106	16419	8	24.659	10.742	16493	8	13.682	12.728	16567	17	3.328	14.975
16272	14	1.484	8.914	16346	10	9.024	9.238	16420	30	24.724	10.444	16494	18	14.133	12.843	16568	17	3.969	14.526
16273	11	2.238	8.980	16347	8	9.266	9.072	16421	9	25.046	10.326	16495	8	14.185	12.830	16569	16	4.084	14.878
16274	16	3.147	8.755	16348	14	10.799	9.974	16422	10	25.486	10.961	16496	8	14.354	12.484	16570	9	4.610	14.361
16275	12	3.485	8.012	16349	9	10.862	9.329	16423	9	25.842	10.580	16497	18	15.000	12.688	16571	8	5.630	1



16583*	30	9.476	14.675	16657	10	20.100	15.479	16731	16	4.794	17.572	16805	20	14.956	18.575	16879	21	1.466	20.678
16584	18	9.538	14.988	16658	9	20.326	15.631	16732	8	5.549	17.297	16806	16	15.061	18.736	16880	8	1.539	20.263
16585*	90	9.778	14.931	16659	24	21.778	15.782	16733	22	6.692	17.792	16807	20	15.200	18.191	16881	18	1.594	20.146
16586	9	10.416	14.908	16660	17	21.840	15.958	16734	15	6.820	17.703	16808	20	15.628	18.004	16882	13	2.636	20.630
16587	8	10.612	14.478	16661	14	21.904	15.354	16735	8	7.937	17.618	16809	15	16.120	18.196	16883	8	3.464	20.985
16588	14	10.956	14.879	16662	9	22.018	15.216	16736	23	7.966	17.904	16810	17	16.677	18.780	16884	12	3.604	20.440
16589	20	11.438	14.998	16663	12	22.620	15.505	16737	12	8.098	17.848	16811	14	17.261	18.668	16885	22	4.216	20.704
16590	9	11.491	14.396	16664*	34	23.327	15.234	16738	8	8.427	17.034	16812	8	17.274	18.780	16886	21	4.634	20.715
16591	21	11.822	14.157	16665	8	23.937	15.770	16739	10	8.798	17.998	16813	20	17.554	18.096	16887*	27	4.874	20.124
16592	23	13.016	14.629	16666	8	24.119	15.718	16740	8	9.370	17.662	16814	11	17.742	18.250	16888	21	5.044	20.530
16593	20	13.815	14.250	16667	10	24.364	15.684	16741	9	9.829	17.244	16815	17	18.508	18.774	16889	12	5.764	20.520
16594	17	14.174	14.017	16668	8	24.633	15.145	16742	16	10.015	17.416	16816	8	18.698	18.484	16890	13	5.830	20.442
16595	8	14.366	14.264	16669	13	24.773	15.800	16743	8	10.276	17.768	16817	13	18.926	18.952	16891	14	6.127	20.056
16596	19	14.642	14.842	16670	8	24.798	15.223	16744	8	11.291	17.191	16818	11	18.926	18.661	16892	8	6.233	20.711
16597	8	15.421	14.704	16671	20	25.194	15.833	16745	10	11.378	17.072	16819	8	19.264	18.464	16893	24	6.764	20.242
16598	8	15.427	14.194	16672	9	25.220	15.440	16746	11	11.644	17.374	16820	9	19.330	18.461	16894	21	6.993	20.578
16599	16	17.740	14.976	16673	10	0.103	16.466	16747	8	12.013	17.994	16821	8	20.006	18.684	16895	8	7.134	20.316
16600	20	20.546	14.470	16674	18	0.344	16.200	16748	8	12.140	17.534	16822	8	20.197	18.636	16896	20	7.444	20.838
16601	10	20.603	14.648	16675	15	0.766	16.502	16749	13	13.034	17.155	16823	15	20.427	18.485	16897	8	8.270	20.315
16602	9	21.210	14.765	16676	9	1.003	16.900	16750	8	13.296	17.304	16824	16	20.482	18.216	16898	24	8.490	20.745
16603	16	21.342	14.030	16677	15	1.066	16.176	16751	8	13.500	17.430	16825	23	21.854	18.165	16899	8	9.706	20.085
16604	10	21.412	14.057	16678	16	2.674	16.824	16752	12	14.040	17.065	16826	14	21.874	18.430	16900	8	10.641	20.132
16605	21	21.835	14.552	16679	14	2.745	16.208	16753	8	14.895	17.458	16827	8	22.059	18.654	16901	20	12.155	20.452
16606	11	21.938	14.760	16680	16	3.294	16.504	16754	21	15.286	17.285	16828	13	23.728	18.348	16902	8	12.446	20.820
16607	21	23.246	14.566	16681	22	3.316	16.294	16755	14	15.286	17.210	16829	8	25.115	18.221	16903	10	12.470	20.900
16608*	60	23.271	14.261	16682	17	3.781	16.838	16756	10	15.357	17.480	16830	8	25.544	18.316	16904	8	12.708	20.900
16609	9	23.775	14.758	16683	19	4.038	16.261	16757	10	16.215	17.810	16831	8	25.602	18.025	16905	20	12.866	20.498
16610	8	24.168	14.294	16684	8	4.304	16.713	16758*	36	16.380	17.150	16832	20	25.796	18.314	16906	11	13.054	20.926
16611	10	24.182	14.320	16685	8	5.514	16.816	16759	8	16.740	17.844	16833	8	0.536	19.826	16907	8	13.112	20.586
16612	20	24.450	14.034	16686	10	5.746	16.904	16760	8	17.271	17.857	16834	18	0.681	19.078	16908	12	15.668	20.484
16613	38	25.472	14.304	16687	23	5.882	16.472	16761	8	18.286	17.756	16835	10	1.262	19.684	16909	12	17.188	20.473
16614	25	0.134	15.648	16688	8	6.276	16.669	16762	13	19.529	17.190	16836	8	1.565	19.310	16910	9	17.255	20.817
16615	19	1.370	15.149	16689	8	7.156	16.275	16763	8	19.977	17.649	16837*	36	1.888	19.111	16911	8	17.727	20.538
16616	8	1.404	15.186	16690	11	7.876	16.526	16764	12	20.548	17.086	16838	19	1.980	19.254	16912	8	18.026	20.870
16617	20	1.650	15.120	16691	8	8.684	16.986	16765	9	21.024	17.354	16839	21	2.048	19.577	16913	15	18.676	20.843
16618	22	1.662	15.692	16692	16	8.702	16.561	16766	8	21.374	17.856	16840	9	4.503	19.812	16914	9	19.888	20.395
16619	8	2.362	15.425	16693	8	9.280	16.742	16767	8	23.744	17.256	16841	8	5.454	19.578	16915	21	19.977	20.062
16620	11	2.950	15.419	16694	19	11.024	16.121	16768	8	24.076	17.022	16842*	36	5.469	19.334	16916	8	20.193	20.163
16621	13	3.337	15.318	16695	18	11.289	16.950	16769	8	24.864	17.342	16843	23	6.178	19.681	16917	8	20.217	20.539
16622	12	3.422	15.678	16696	8	11.420	16.356	16770	23	25.468	17.269	16844	8	6.381	19.492	16918	11	20.236	20.047
16623	10	5.817	15.940	16697	10	11.790	16.128	16771	18	0.342	18.874	16845	12	6.988	19.082	16919	11	21.962	20.300
16624	12	6.607	15.850	16698	8	12.352	16.322	16772	8	0.827	18.916	16846	13	7.006	19.540	16920	11	21.976	20.985
16625	9	7.885	15.859	16699	14	13.871	16.376	16773	9	1.952	18.088	16847	20	7.700	19.079	16921	12	22.257	20.671
16626	24	7.900	15.026	16700	17	15.406	16.186	16774*	36	2.022	18.700	16848	8	9.858	19.061	16922	12	22.340	20.150
16627	13	8.427	15.622	16701	15	16.702	16.942	16775	15	2.070	18.645	16849	13	11.090	19.723	16923	30	22.965	20.278
16628	13	8.506	15.652	16702	18	16.724	16.324	16776	12	2.148	18.993	16850	8	11.266	19.310	16924	22	23.904	20.732
16629	8	9.040	15.880	16703	10	18.776	16.859	16777	20	2.956	18.864	16851	22	11.494	19.539	16925	8	23.920	20.694
16630	8	9.041	15.680	16704	20	20.418	16.363	16778*	25	3.887	18.678	16852	8	12.294	19.008	16926	15	25.004	20.268
16631	9	10.277	15.774	16705	8	20.874	16.361	16779	8	3.972	18.944	16853	8	12.561	19.758	16927	12	25.574	20.072
16632	35	11.094	15.480	16706	11	20.959	16.526	16780	21	4.356	18.069	16854	15	13.775	19.946	16928	8	25.917	20.746
16633	8	11.199	15.024	16707	14	21.502	16.726	16781	8	5.034	18.556	16855	10	15.002	19.115	16929	12	0.460	21.176
16634	28	11.278	15.606	16708	8	21.860	16.350	16782	8	5.212	18.146	16856*	45	15.800	19.926	16930	28	0.616	21.680
16635	8	11.328	15.895	16709	15	22.668	16.528	16783	8	5.486	18.080	16857	20	16.236	19.011	16931	18	0.670	21.480
16636	8	11.447	15.664	16710	33	23.190	16.110	16784	22	5.626	18.834	16858	13	16.756	19.616	16932	20	1.490	21.258
16637	11	11.524	15.625	16711	13	23.692	16.542	16785	8	5.800	18.912	16859	8	16.898	19.480	16933	15	1.825	21.417
16638	8	11.756	15.482	16712	14	23.774	16.148	16786	22	5.875	18.702	16860	16	17.076	19.777	16934	9	2.466	21.288
16639	18	12.507	15.148	16713	22	24.070	16.505	16787	13	6.070	18.570	16861	8	17.404	19.782	16935	9	2.615	21.782
16640	12	12.614	15.627	16714	22	24.436	16.076	16788	8	6.124	18.456	16862	13	17.632	19.588	16936	8	2.918	21.808
16641	21	13.236	15.988	16715	21	24.506	16.122	16789	8	6.380	18.046	16863	8	18.042	19.640	16937	20	4.271	21.573
16642	24	13.312	15.680	16716	15	24.514	16.489	16790	11	6.444	18.072	16864	18	18.069	19.064	16938	9	5.124	21.232
16643	8	14.788	15.439	16717	8	24.594	16.716	16791	14	6.976	18.266	16865	12	18.590	19.426	16939	8	5.344	21.483
16644	8	15.646	15.410	16718	19	24.782	16.539	16792	9	8.090	18.224	16866	8	19.262	19.512	16940*	38	5.862	21.526
16645	13	15.788	15.246	16719	13	24.994	16												



16953	8	14.216	21.434	17027	23	1.654	23.434	17101	17	13.100	24.124	17256	21	9.162	2.690
16954	20	15.031	21.318	17028*	49	1.981	23.072	17102	8	13.668	24.886	17257	25	9.280	2.506
16955	21	15.165	21.941	17029	19	2.169	23.204	17103	8	14.008	24.505	17258	8	9.515	2.779
16956	16	15.766	21.324	17030	11	3.618	23.026	17104	9	14.452	24.551	17259	8	10.684	2.556
16957	21	15.817	21.855	17031	8	3.993	23.707	17105	19	14.466	24.142	17260	20	11.463	2.621
16958	11	15.856	21.030	17032	8	4.077	23.862	17106	8	14.633	24.523	17261	9	11.576	2.160
16959	19	15.866	21.483	17033	9	4.529	23.588	17107	17	14.890	24.124	17262	8	11.815	2.479
16960	13	16.350	21.284	17034	11	5.278	23.825	17108	24	15.645	24.420	17263	8	11.926	2.876
16961	25	16.624	21.630	17035	9	6.326	23.470	17109	18	16.672	24.896	17264	8	12.596	2.565
16962	8	16.635	21.338	17036	22	6.472	23.174	17110	28	16.734	24.004	17265	8	13.849	2.850
16963	19	17.433	21.700	17037	10	7.851	23.650	17111	26	16.854	24.574	17266	13	13.901	2.600
16964	20	17.509	21.971	17038	12	8.204	23.597	17112	8	17.087	24.526	17267	8	15.046	2.305
16965	12	17.681	21.348	17039	8	8.334	23.388	17113	8	17.682	24.351	17268	8	15.168	2.602
16966	16	20.047	21.806	17040*	50	8.402	23.416	17114	8	18.722	24.296	17269	33	15.880	2.502
16967	17	20.372	21.464	17041	15	9.429	23.910	17115	25	19.702	24.342	17270*	32	16.538	2.914
16968	20	21.046	21.536	17042	8	9.891	23.385	17116	8	21.364	24.602	17271*	66	17.915	2.755
16969	18	21.080	21.038	17043	17	9.970	23.100	17117	30	21.814	24.194	17272	8	18.196	2.250
16970	8	21.325	21.523	17044	24	10.416	23.986	17118	8	22.167	24.600	17273	13	20.706	2.470
16971	8	21.572	21.990	17045	14	10.902	23.614	17119	8	22.800	24.862	17274	8	21.020	2.614
16972	8	22.213	21.562	17046	8	11.188	23.220	17120	8	24.148	24.852	17275	25	21.640	2.814
16973	8	22.242	21.847	17047	16	11.314	23.428	17121	8	24.300	24.484	17276	8	24.323	2.654
16974	12	22.485	21.434	17048	11	11.407	23.468	17122	8	24.386	24.703	17277	8	3.594	3.687
16975	10	22.548	21.346	17049	21	11.834	23.302	17123	17	24.866	24.176	17278	9	6.564	3.236
16976*	43	22.718	21.410	17050	19	12.446	23.772	17124*	60	2.942	25.150	17279	12	8.514	3.418
16977	20	24.134	21.895	17051	14	12.625	23.507	17125	18	3.620	25.409	17280*	88	9.800	3.822
16978	8	25.354	21.059	17052	15	12.712	23.808	17126	15	3.743	25.660	17281	8	11.046	3.568
16979	11	0.149	22.334	17053	8	13.042	23.534	17127	10	3.996	25.349	17282	27	12.295	3.165
16980	11	0.874	22.308	17054	20	13.338	23.548	17128	12	4.646	25.836	17283	13	13.970	3.307
16981	19	0.980	22.300	17055	14	14.308	23.080	17129	39	5.085	25.870	17284*	60	14.833	3.128
16982	8	1.216	22.310	17056	20	14.810	23.762	17130	14	5.241	25.522	17285	8	15.880	3.764
16983	18	1.744	22.024	17057	13	15.207	23.984	17131	8	5.604	25.100	17286	8	17.502	3.336
16984	8	1.804	22.964	17058	10	15.433	23.902	17132*	48	6.485	25.476	17287	8	18.515	3.722
16985	20	1.826	22.944	17059	14	15.988	23.329	17133	12	6.680	25.633	17288*	42	19.254	3.466
16986	13	2.125	22.220	17060	8	16.478	23.350	17134	11	6.974	25.240	17289	8	20.008	3.797
16987	12	3.000	22.138	17061	23	17.079	23.016	17135	8	7.063	25.409	17290	8	20.694	3.984
16988	8	3.216	22.180	17062	24	17.833	23.934	17136	9	7.654	25.395	17291	8	21.351	3.069
16989	13	4.416	22.286	17063	18	17.848	23.378	17137	12	7.841	25.776	17292	10	21.612	3.640
16990	9	4.816	22.036	17064	20	17.854	23.388	17138	8	8.154	25.520	17293	24	22.166	3.084
16991	10	5.824	22.594	17065	8	18.160	23.330	17139	25	12.104	25.480	17294	16	22.954	3.714
16992	8	6.073	22.840	17066	20	18.414	23.401	17140*	34	12.314	25.240	17295	9	23.214	3.440
16993	15	7.758	22.132	17067	8	18.504	23.416	17141	10	12.438	25.751	17296	14	23.969	3.427
16994	8	8.199	22.272	17068	9	18.630	23.248	17142	8	12.866	25.398	17297	12	24.260	3.656
16995	11	9.918	22.330	17069	21	19.086	23.896	17143	23	12.900	25.409	17298	8	24.300	3.578
16996	10	10.139	22.474	17070	11	19.364	23.720	17144	21	13.088	25.228	17299*	35	3.076	4.830
16997	11	12.715	22.480	17071	8	19.440	23.050	17145	8	14.339	25.637	17300	9	8.350	4.190
16998	23	13.510	22.014	17072	20	20.814	23.996	17146	8	15.748	25.842	17301	10	9.652	4.899
16999	8	13.540	22.138	17073	19	21.261	23.567	17147	8	16.362	25.931	17302	12	10.241	4.247
17000	12	14.604	22.100	17074	10	21.262	23.198	17148	9	16.959	15.682	17303	8	11.636	4.178
17001	11	15.000	22.598	17075	12	21.506	23.452	17149	10	17.000	25.578	17304	20	11.766	4.634
17002	19	15.438	22.897	17076	10	22.259	23.345	17150	21	17.364	25.988	17305	13	12.079	4.360
17003	10	16.714	22.298	17077	18	23.492	23.732	17151	8	18.260	25.732	17306	8	12.644	4.442
17004	12	17.059	22.844	17078	8	23.778	23.916	17152	8	18.296	25.847	17307	20	13.457	4.654
17005	20	17.346	22.164	17079	8	23.885	23.271	17153	9	18.694	25.600	17308	13	13.927	4.193
17006	11	17.454	22.370	17080	9	24.148	23.186	17154	9	19.316	25.022	17309	8	13.970	4.194
17007	15	17.456	22.400	17081	12	24.950	23.523	17155	8	19.418	25.494	17310	12	16.106	4.668
17008	24	17.646	22.233	17082	23	25.545	23.508	17156	10	19.442	25.112	17311	24	17.120	4.138
17009*	36	17.676	22.218	17083	16	25.800	23.925	17157	11	19.923	25.183	17312	8	17.317	4.420
17010	11	18.810	22.324	17084	8	25.815	23.095	17158	12	20.277	25.170	17313	8	18.730	4.059
17011	11	18.896	22.986	17085	15	1.034	24.510	17159	14	21.144	25.750	17314	13	18.858	4.830
17012	15	19.365	22.461	17086	16	1.412	24.573	17160	10	21.668	25.740	17315	8	21.787	4.560
17013	24	19.576	22.744	17087	8	3.413	24.280	17161	24	22.376	25.974	17316	12	23.728	4.080
17014	11	20.362	22.208	17088	37	4.364	24.405	17162	14	23.114	25.380	17317	12	24.113	4.164
17015	8	20.840	22.766	17089	11	4.777	24.991	17163	16	23.376	25.978	17318	15	24.424	4.220
17016	25	21.001	22.744	17090	8	6.455	24.550	17164	8	23.598	25.423	17319	12	1.030	5.812
17017	8	22.127	22.308	17091*	36	6.797	24.903	17165	14	24.356	25.095	17320	8	1.896	5.942
17018	8	22.424	22.157	17092	9	7.226	24.444					17321	14	4.932	5.491
17019	9	22.795	22.506	17093	8	7.718	24.056					17322	12	7.564	5.894
17020	20	22.979	22.927	17094	11	8.284	24.006					17323	8	8.085	5.671
17021	11	24.014	22.443	17095	20	8.575	24.502					17324	8	10.240	5.624
17022	21	24.464	22.319	17096	8	9.326	24.964					17325	10	11.662	5.262
17023	8	24.902	22.282	17097	10	9.777	24.400					17326	22	12.312	5.548
17024	24	0.269	23.866	17098	11	10.158	24.299					17327	8	12.815	5.803
17025	11	0.433	23.646	17099*	40	10.332	24.437					17328	8	13.906	5.456
17026	8	0.767	23.662	17100*	36	10.392	24.060					17329	24	15.346	5.698

R.A. 7<sup>h</sup> 16<sup>m</sup>

Plate 402; 1914 Dec. 22.

Provisional Constants.

A B C  
 -01756 +00630 -0166

D E F  
 -00603 -01790 +4586

Mag. = 16.4 - 1.09√d

No.	d	x	y
17200	17	0.576	0.636
17201	8	1.894	0.320
17202	31	2.198	0.276
17203	12	2.398	0.368
17204	8	3.942	0.842
17205	20	4.921	0.226
17206	13	7.284	0.335
17207	18	9.564	0.042
17208	23	10.982	0.977
17209*	48	13.278	0.782
17210	8	14.228	0.819
17211	12	14.503	0.780
17212	11	14.582	0.924
17213	18	14.830	0.958
17214*	29	14.884	0.868
17215	13	16.004	0.684
17216	11	16.256	0.766
17217	19	17.815	0.700
17218	34	18.051	0.986
17219	13	18.422	0.336
17220	12	18.939	0.774
17221	26	19.156	0.308
17222	11	21.331	0.128
17223	30	22.862	0.288
17224	13	0.507	1.844
17225	8	2.429	1.220
17226	12	4.132	1.680
17227	8	4.800	1.500
17228	24	5.518	1.402
17229	8	5.582	1.304
17230	10	5.851	1.926
17231	12	6.284	1.679
17232	10	7.308	1.856
17233	15	7.566	1.965
17234	17	8.692	1.397
17235	11	11.583	1.986
17236	8	12.782	1.268
17237	10	13.944	1.746
17238	10	15.400	1.825
17239	23	16.464	1.886
17240	23	20.126	1.830
17241	12	20.440	1.146
17242	9	21.438	1.736
17243	8	21.552	1.344
17244	14	22.184	1.247
17245*	24	22.670	1.158
17246	9	23.581	1.718
17247*	117	24.535	1.370
17248	8	25.851	1.889
17249	41	0.454	2.946
17250	14	1.820	2.828
17251	18	2.619	2.510
17252	14	3.975	2.546
17253	9	4.556	2.625
17254	8	5.166	2.135
17255*	51	7.770	2.511



17330	21	15.624	5.715	17404	15	22.558	7.280	17478	8	2.633	10.716	17552	21	2.082	12.270	17626	39	20.328	13.007
17331	19	16.650	5.410	17405	8	23.510	7.172	17479	21	2.680	10.366	17553	12	2.268	12.687	17627	12	20.568	13.709
17332	8	17.622	5.702	17406	12	25.929	7.200	17480	8	3.428	10.968	17554	23	3.110	12.904	17628	20	20.592	13.879
17333	12	20.023	5.490	17407	9	0.278	8.812	17481	11	4.426	10.530	17555	12	3.242	12.346	17629	9	21.242	13.330
17334*	49	20.944	5.756	17408	8	0.475	8.949	17482	16	4.659	10.586	17556	16	3.376	12.134	17630	8	22.543	13.082
17335	12	21.133	5.205	17409	47	0.483	8.222	17483	20	7.180	10.402	17557	23	4.184	12.376	17631	11	22.644	13.050
17336	8	25.495	5.814	17410*	41	1.982	8.634	17484	8	7.606	10.684	17558	10	4.350	12.174	17632	14	24.682	13.604
17337	19	2.257	6.925	17411	8	2.969	8.534	17485	24	9.764	10.760	17559	17	4.646	12.590	17633	8	24.787	13.897
17338	8	2.428	6.564	17412	15	3.334	8.480	17486	13	10.304	10.170	17560	9	4.981	12.991	17634	9	25.450	13.041
17339	8	2.900	6.476	17413	8	3.944	8.450	17487	8	10.360	10.674	17561	8	4.985	12.168	17635	18	0.850	14.966
17340	40	3.076	6.406	17414	8	5.100	8.164	17488	11	10.838	10.450	17562	31	5.695	12.846	17636*	64	0.869	14.661
17341	12	5.610	6.114	17415	8	5.330	8.825	17489	9	11.244	10.076	17563	8	5.762	12.110	17637	9	1.788	14.714
17342	14	5.844	6.775	17416	9	6.407	8.149	17490	24	11.588	10.934	17564	21	6.310	12.754	17638	17	2.054	14.426
17343*	44	7.496	6.856	17417*	39	6.562	8.980	17491	18	12.021	10.608	17565	23	8.286	12.320	17639	38	3.071	14.694
17344	16	8.478	6.077	17418	11	7.241	8.656	17492	15	13.027	10.906	17566	14	9.709	12.729	17640	11	3.740	14.124
17345	14	10.094	6.506	17419	8	7.278	8.422	17493	17	13.898	10.186	17567	18	9.844	12.554	17641	12	3.785	14.726
17346	16	10.474	6.705	17420	9	7.808	8.716	17494	18	14.120	10.405	17568	10	10.213	12.158	17642	9	4.127	14.746
17347	8	11.834	6.364	17421	17	8.778	8.733	17495	23	15.149	10.898	17569	23	10.244	12.256	17643	8	4.244	14.288
17348	9	12.310	6.954	17422*	40	9.489	8.692	17496	8	15.266	10.988	17570	12	11.551	12.574	17644	17	5.730	14.418
17349	9	12.340	6.703	17423	11	11.251	8.578	17497	12	15.750	10.134	17571	12	11.604	12.410	17645	9	5.846	14.716
17350	9	13.588	6.558	17424	22	12.504	8.584	17498	9	16.512	10.904	17572	8	12.470	12.291	17646	10	6.070	14.144
17351	19	13.668	6.650	17425	8	14.270	8.884	17499	13	18.046	10.645	17573	8	12.966	12.518	17647	19	6.206	14.937
17352	9	14.656	6.242	17426*	47	14.396	8.648	17500	11	18.489	10.879	17574	17	13.426	12.497	17648	8	6.822	14.120
17353	27	15.237	6.900	17427	24	14.426	8.782	17501	15	19.580	10.886	17575	14	17.242	12.840	17649	9	7.068	14.090
17354	8	15.378	6.320	17428	9	16.354	8.264	17502	12	19.654	10.811	17576	9	17.294	12.576	17650	8	8.306	14.742
17355	11	18.242	6.655	17429	10	16.448	8.972	17503	8	20.390	10.546	17577	12	19.146	12.040	17651	8	9.342	14.337
17356	16	18.782	6.975	17430	11	18.080	8.385	17504	8	20.794	10.547	17578	8	20.444	12.284	17652	9	11.344	14.549
17357	14	18.906	6.965	17431	8	18.845	8.764	17505	8	21.366	10.680	17579	8	20.621	12.765	17653	12	11.559	14.820
17358	31	19.088	6.794	17432	20	20.492	8.276	17506	12	21.380	10.416	17580	13	20.646	12.730	17654	35	13.312	14.724
17359	12	19.148	6.980	17433	17	20.900	8.736	17507	12	21.560	10.254	17581	10	25.665	12.394	17655	12	13.780	14.978
17360	8	19.400	6.034	17434	11	21.264	8.630	17508	17	22.800	10.563	17582	18	0.214	13.966	17656	8	14.190	14.123
17361	22	21.614	6.199	17435	16	22.742	8.876	17509	12	24.410	10.518	17583	31	0.875	13.431	17657	8	15.907	14.096
17362*	41	21.997	6.126	17436	10	0.132	9.720	17510	11	25.485	10.954	17584	21	1.659	13.436	17658	9	17.382	14.632
17363	12	22.266	6.092	17437	13	1.572	9.200	17511	13	0.954	11.763	17585	8	1.904	13.163	17659	23	17.466	14.836
17364	9	22.533	6.927	17438	8	2.570	9.150	17512	20	1.907	11.272	17586	23	2.070	13.276	17660	12	17.747	14.450
17365	8	22.750	6.874	17439	10	3.359	9.616	17513	8	1.914	11.952	17587	19	2.774	13.686	17661	11	17.780	14.952
17366	11	23.030	6.620	17440*	32	3.708	9.788	17514	21	1.970	11.085	17588	26	2.782	13.032	17662	12	18.830	14.144
17367	15	23.556	6.342	17441	8	5.005	9.870	17515	8	2.390	11.424	17589	16	2.944	13.004	17663	8	19.420	14.510
17368	11	23.642	6.844	17442*	38	7.124	9.032	17516	13	3.062	11.654	17590	9	3.032	13.035	17664	14	19.600	14.304
17369	13	23.833	6.322	17443	8	7.474	9.001	17517	8	3.074	11.348	17591	12	3.325	13.142	17665	8	20.150	14.130
17370	8	24.717	6.568	17444	14	8.233	9.765	17518	11	3.761	11.571	17592	24	3.513	13.322	17666	19	20.579	14.222
17371	18	25.453	6.048	17445	12	8.314	9.783	17519	20	4.644	11.426	17593	11	3.574	13.984	17667	8	20.964	14.822
17372	22	25.659	6.000	17446	13	8.329	9.708	17520	15	5.142	11.590	17594	8	3.793	13.530	17668	18	22.488	14.504
17373*	57	1.018	7.816	17447	12	8.488	9.656	17521	10	5.326	11.587	17595	22	3.816	13.717	17669	10	23.950	14.616
17374	8	3.121	7.974	17448	17	9.278	9.699	17522	9	5.926	11.690	17596	13	3.826	13.920	17670	14	24.110	14.714
17375	17	3.647	7.043	17449	8	10.608	9.250	17523	32	6.948	11.733	17597	8	4.354	13.490	17671	21	24.447	14.817
17376	12	4.287	7.942	17450	20	11.261	9.853	17524	8	7.702	11.710	17598	36	4.377	13.048	17672	9	24.823	14.096
17377	15	4.530	7.776	17451	12	11.584	9.404	17525	8	8.131	11.780	17599	14	4.862	13.016	17673	15	25.254	14.600
17378	8	4.970	7.530	17452	8	11.608	9.462	17526	27	8.424	11.096	17600	9	4.894	13.780	17674	8	25.541	14.550
17379	9	5.813	7.435	17453	10	11.813	9.006	17527	22	9.540	11.269	17601	8	6.704	13.874	17675	8	25.620	14.224
17380	12	5.896	7.596	17454	8	11.828	9.548	17528	14	9.648	11.170	17602	8	7.073	13.074	17676*	32	0.931	15.635
17381	29	6.666	7.668	17455*	31	11.992	9.143	17529	9	10.136	11.096	17603*	40	7.190	13.280	17677	10	1.308	15.518
17382	25	7.843	7.168	17456	9	12.400	9.176	17530	8	12.042	11.334	17604	20	7.404	13.738	17678	8	3.862	15.351
17383	9	7.900	7.732	17457	12	12.655	9.692	17531*	33	12.166	11.360	17605	14	7.503	13.141	17679	10	3.970	15.399
17384	8	8.258	7.575	17458	14	12.750	9.270	17532	9	12.748	11.846	17606	11	7.616	13.958	17680*	43	3.974	15.215
17385	24	9.078	7.240	17459	8	13.832	9.624	17533	16	12.838	11.712	17607	8	7.963	13.177	17681	8	4.390	15.618
17386	9	9.850	7.865	17460	8	14.380	9.479	17534	10	13.933	11.398	17608	8	8.041	13.648	17682	21	4.566	15.180
17387	8	11.305	7.684	17461	22	14.448	9.074	17535	20	14.150	11.718	17609	8	8.152	13.100	17683	8	4.790	15.326
17388	13	12.174	7.140	17462	13	15.259	9.783	17536	9	14.766	11.488	17610*	60	8.857	13.512	17684	12	5.328	15.034
17389	27	13.030	7.676	17463	23	15.417	9.647	17537	31	16.526	11.340	17611	8	10.058	13.280	17685	36	5.636	15.832
17390	32	15.773	7.216	17464	10	16.283	9.430	17538	8	17.596	11.930	17612	11	10.212	13.942	17686	9	5.698	15.424
17391	8	18.276	7.492	17465	28	16.750	9.005	17539	15	17.811	11.870	17613	15	10.526	13.424	17687	9	5.800	15.318
17392	8	18.337	7.491	17466	8	17.088	9.081	17540	8	18.057	11.448	17614	20	13.163	13.005	17688	23	6.168	15.327
17393	18	18.9																	



17700	8	16.374	15.864	17774	12	9.628	17.740	17848	8	18.516	19.294	17922	8	17.940	21.779	17996	8	15.018	23.613
17701	15	16.794	15.332	17775	8	10.320	17.456	17849	14	18.964	18.322	17923	8	19.224	21.670	17997	16	15.346	23.803
17702	8	17.770	15.180	17776	33	10.990	17.378	17850	26	19.008	19.310	17924	9	19.708	21.142	17998	8	15.835	23.539
17703	13	18.752	15.010	17777	13	12.822	17.780	17851	11	20.362	19.876	17925	13	20.060	21.513	17999	15	16.904	23.812
17704	8	18.825	15.682	17778	10	13.752	17.732	17852	13	20.602	19.424	17926	8	20.648	21.492	18000*	40	17.285	23.238
17705	9	20.236	15.830	17779	8	15.342	17.106	17853*	60	20.620	19.925	17927	21	21.254	21.700	18001	14	17.352	23.338
17706	20	20.941	15.300	17780	17	17.344	17.554	17854	8	21.028	19.993	17928	8	21.530	21.089	18002	14	18.319	23.001
17707	15	21.108	15.768	17781	8	17.363	17.328	17855	8	21.544	19.306	17929	8	23.716	21.510	18003	8	19.738	23.654
17708	25	21.300	15.043	17782	15	17.480	17.876	17856	10	21.615	19.496	17930	8	24.233	21.551	18004	11	20.935	23.166
17709*	66	22.526	15.685	17783	10	17.782	17.417	17857*	29	22.230	19.382	17931	12	24.470	21.303	18005	12	21.939	23.680
17710	8	22.700	15.120	17784	12	18.564	17.496	17858	9	22.566	19.392	17932	15	25.360	21.859	18006	37	22.646	23.181
17711	8	23.739	15.007	17785	10	18.670	17.729	17859	17	22.712	19.262	17933	12	25.958	21.120	18007	8	22.921	23.780
17712	16	23.781	15.730	17786	8	19.021	17.292	17860	8	22.815	19.130	17934	8	0.759	22.629	18008	13	23.439	23.329
17713	8	25.526	15.825	17787	25	19.068	17.680	17861	15	25.952	19.512	17935	9	1.656	22.837	18009	8	23.951	23.818
17714	8	25.556	15.636	17788	8	19.866	17.023	17862	35	0.479	20.096	17936	14	1.776	22.287	18010	8	23.957	23.899
17715	8	0.282	16.930	17789	9	20.719	17.155	17863	25	0.600	20.675	17937	18	2.110	22.709	18011*	44	24.516	23.532
17716	35	0.800	16.509	17790	12	22.524	17.440	17864	12	2.638	20.657	17938	8	4.940	22.102	18012	8	25.760	23.358
17717	8	1.307	16.940	17791	8	23.026	17.682	17865	8	3.204	20.457	17939	9	8.338	22.150	18013	9	25.800	23.454
17718	8	1.389	16.545	17792	8	23.478	17.937	17866	38	4.180	20.765	17940	9	8.960	22.612	18014	8	25.834	23.486
17719	21	1.685	16.900	17793	26	24.156	17.609	17867*	34	4.194	20.246	17941	8	10.330	22.506	18015	12	1.147	24.126
17720	8	1.973	16.078	17794	8	24.726	17.578	17868	20	5.229	20.751	17942	8	10.330	22.758	18016	8	1.706	24.652
17721	24	2.048	16.468	17795	10	24.788	17.546	17869	8	5.556	20.394	17943	9	11.554	22.816	18017	14	2.524	24.561
17722	15	2.118	16.512	17796	20	25.250	17.616	17870	10	6.080	20.349	17944	11	13.201	22.186	18018	15	3.452	24.306
17723	12	2.130	16.881	17797	8	25.554	17.374	17871	22	6.256	20.401	17945	10	13.216	22.444	18019	8	4.030	24.426
17724	10	2.384	16.192	17798	14	3.420	18.702	17872	8	7.275	20.432	17946	12	14.836	22.290	18020	27	4.762	24.388
17725	14	2.398	16.929	17799	11	4.632	18.918	17873	8	7.302	20.362	17947	8	14.964	22.413	18021	15	4.958	24.188
17726	10	2.608	16.970	17800	9	4.678	18.933	17874	10	7.760	20.008	17948	27	15.309	22.120	18022	8	5.060	24.867
17727	15	2.805	16.224	17801	20	5.889	18.587	17875	23	7.866	20.154	17949	17	15.454	22.940	18023	8	5.420	24.194
17728	10	3.075	16.828	17802	30	5.998	18.550	17876*	40	9.496	20.867	17950	10	15.882	22.708	18024	11	6.172	24.310
17729	10	3.934	16.444	17803	17	6.572	18.733	17877	8	9.960	20.702	17951	19	16.292	22.840	18025	12	7.171	24.596
17730	19	5.346	16.634	17804	8	6.764	18.996	17878	8	11.248	20.186	17952	13	16.751	22.866	18026	13	8.440	24.427
17731	23	6.658	16.504	17805	8	7.008	18.018	17879	12	11.594	20.236	17953	24	18.474	22.579	18027	34	8.974	24.441
17732	11	6.664	16.706	17806	11	8.053	18.802	17880	8	12.476	20.123	17954	18	19.358	22.556	18028	10	9.323	24.056
17733	8	7.836	16.166	17807	10	8.318	18.705	17881	8	13.840	20.377	17955	22	20.002	22.051	18029	8	9.556	24.878
17734	9	9.780	16.672	17808	9	8.926	18.671	17882	17	14.256	20.456	17956	12	20.213	22.761	18030	25	9.974	24.573
17735	10	10.538	16.084	17809	8	9.634	18.500	17883	14	14.542	20.958	17957	8	20.223	22.638	18031	8	10.232	24.330
17736	20	10.763	16.666	17810	15	11.137	18.080	17884	8	15.390	20.996	17958	11	20.586	22.606	18032	9	12.313	24.966
17737	18	11.764	16.226	17811	9	12.115	18.148	17885	9	15.720	20.985	17959	8	21.009	22.643	18033	13	12.643	24.370
17738	19	11.778	16.916	17812	10	12.282	18.710	17886	16	16.595	20.806	17960	12	21.209	22.324	18034	20	13.289	24.076
17739	10	13.752	16.494	17813	8	12.356	18.606	17887*	56	17.520	20.628	17961	9	21.655	22.484	18035	8	13.446	24.597
17740	8	15.664	16.692	17814	8	12.376	18.767	17888	35	17.605	20.124	17962	8	22.783	22.188	18036	20	15.180	24.546
17741	15	19.096	16.912	17815	19	12.640	18.166	17889	8	17.770	20.910	17963	9	24.302	22.038	18037*	49	16.164	24.572
17742	18	19.430	16.026	17816	12	12.724	18.614	17890*	60	18.202	20.442	17964	8	24.304	22.711	18038	14	16.209	24.256
17743	8	19.599	16.734	17817	12	13.147	18.190	17891	15	18.734	20.050	17965	8	24.600	22.992	18039	8	18.168	24.572
17744	8	19.758	16.247	17818	9	13.505	18.420	17892	12	19.652	20.864	17966	29	24.700	22.163	18040	11	19.394	24.385
17745	9	20.959	16.120	17819	8	13.684	18.294	17893*	60	19.738	20.594	17967	11	25.750	22.565	18041	8	19.696	25.527
17746	8	21.076	16.962	17820	26	14.308	18.772	17894	13	19.984	20.456	17968	8	25.930	22.474	18042	8	20.462	24.126
17747	16	21.106	16.006	17821	8	14.682	18.064	17895	14	20.160	20.067	17969	12	0.630	23.324	18043	21	20.532	24.254
17748	14	21.708	16.838	17822	8	15.464	18.198	17896	10	21.378	20.724	17970	11	2.601	23.910	18044	17	20.680	24.866
17749	20	21.850	16.735	17823	8	17.175	18.433	17897	8	22.455	20.996	17971	22	3.198	23.894	18045	14	21.101	24.276
17750	14	22.496	16.948	17824	8	17.754	18.497	17898	8	23.336	20.366	17972	8	3.467	23.479	18046	8	21.128	24.873
17751	11	22.812	16.482	17825	8	18.222	18.704	17899	8	23.525	20.858	17973	11	4.281	23.756	18047	12	22.660	24.662
17752	12	23.300	16.336	17826	18	18.567	18.099	17900	9	23.856	20.089	17974	9	4.393	23.316	18048	11	22.862	24.312
17753	12	23.905	16.448	17827	21	18.675	18.584	17901	11	24.200	20.812	17975	8	5.010	23.832	18049	8	24.071	24.773
17754	8	24.376	16.933	17828*	57	19.126	18.252	17902	49	0.354	21.812	17976	13	5.424	23.277	18050	8	0.782	25.778
17755	11	24.564	16.555	17829	13	19.716	18.742	17903	17	1.540	21.124	17977	8	5.480	23.558	18051	48	4.270	25.995
17756	8	25.630	16.578	17830*	31	20.708	18.909	17904	8	3.968	21.926	17978	10	6.240	23.244	18052*	54	4.710	25.276
17757	8	25.772	16.890	17831	8	21.034	18.390	17905	9	4.700	21.178	17979	8	7.336	23.462	18053	8	5.130	25.780
17758	20	2.635	17.368	17832	31	21.743	18.364	17906	9	7.326	21.254	17980	25	7.592	23.595	18054	18	6.078	25.225
17759	8	2.806	17.724	17833	9	22.088	18.194	17907	12	8.400	21.750	17981	17	7.754	23.613	18055	8	6.120	25.976
17760	25	3.085	17.656	17834	8	24.800	18.120	17908	10	8.726	21.415	17982	14	7.836	23.792	18056	27	6.640	25.445
17761	16	3.716	17.383	17835	8	0.964	19.875	17909	16	9.799	21.082	17983	10	8.384	23.361	18057	8	7.772	25.578
17762	16	3.716	17.720	17836	19	3.994	19												



18070	12	19.314	25.495	18139	12	14.016	1.199	18213*	41	3.754	4.196	18287	8	25.955	5.514	18361	20	0.144	8.704
18071	8	20.582	25.094	18140	26	14.102	1.968	18214	9	3.914	4.977	18288	8	0.135	6.697	18362	20	4.542	8.686
18072	8	20.737	25.933	18141	8	15.055	1.974	18215	8	6.329	4.276	18289	12	0.416	6.442	18363	12	4.922	8.787
18073	24	21.400	25.090	18142	12	15.292	1.464	18216*	38	7.151	4.390	18290	11	0.896	6.991	18364	34	5.012	8.385
18074	9	23.280	25.872	18143*	41	15.780	1.846	18217	24	9.126	4.584	18291	18	0.936	6.158	18365	23	5.838	8.008
18075	8	23.303	25.506	18144	8	17.556	1.271	18218	8	10.938	4.507	18292	13	1.024	6.664	18366	17	8.211	8.635
18076	12	23.776	25.892	18145	9	17.734	1.754	18219	14	11.164	4.316	18293	18	1.213	6.134	18367	8	8.427	8.530
18077	9	24.126	25.686	18146	8	18.286	1.665	18220	15	11.566	4.174	18294	8	1.565	6.647	18368	11	8.952	8.286
18078	8	25.010	25.760	18147	8	18.310	1.539	18221	14	11.791	4.154	18295	14	2.100	6.376	18369	22	11.290	8.552
18079	8	25.208	25.170	18148	11	18.970	1.784	18222	8	12.600	4.214	18296	16	3.320	6.997	18370	10	11.628	8.716
				18149	12	18.990	1.437	18223	8	13.419	4.414	18297	8	5.034	6.464	18371	8	13.502	8.262
				18150	12	20.448	1.404	18224	13	14.424	4.148	18298	8	5.279	6.600	18372	8	14.226	8.044
				18151	9	21.815	1.875	18225	8	15.265	4.224	18299	20	5.496	6.358	18373	21	16.397	8.259
				18152	8	24.076	1.893	18226	8	15.288	4.395	18300	8	5.629	6.062	18374	8	16.727	8.522
				18153	10	24.327	1.696	18227	12	15.698	4.975	18301	8	6.086	6.988	18375	10	16.784	8.657
				18154	8	1.667	2.460	18228	9	16.400	4.830	18302	20	6.898	6.084	18376	8	17.477	8.118
				18155	8	5.335	2.660	18229	10	16.700	4.832	18303	8	6.928	6.952	18377	16	18.300	8.432
				18156	10	5.690	2.536	18230	9	18.447	4.408	18304	8	7.160	6.598	18378	9	18.308	8.963
				18157	10	7.044	2.567	18231	19	18.587	4.915	18305	10	7.370	6.093	18379	8	19.586	8.302
				18158	16	7.214	2.636	18232	31	18.934	4.740	18306	8	8.430	6.626	18380	8	20.118	8.213
				18159	19	8.064	2.704	18233	22	19.696	4.037	18307	8	8.562	6.566	18381	8	20.446	8.598
				18160	20	9.064	2.822	18234	12	20.598	4.394	18308	14	9.596	6.676	18382	9	20.920	8.282
				18161	12	9.064	2.373	18235	8	20.762	4.904	18309	8	11.847	6.906	18383	10	20.954	8.048
				18162	9	10.722	2.600	18236	9	22.544	4.096	18310	12	11.861	6.518	18384	23	21.024	8.467
				18163	8	11.003	2.623	18237	8	23.226	4.600	18311	10	12.360	6.624	18385	14	21.939	8.717
				18164	25	11.780	2.618	18238	14	23.366	4.714	18312	24	12.420	6.898	18386	8	22.554	8.774
				18165	8	12.644	2.487	18239	10	23.372	4.780	18313	8	13.570	6.492	18387	9	23.626	8.924
				18166	12	13.020	2.976	18240	8	25.354	4.424	18314	11	14.150	6.272	18388*	38	24.429	8.252
				18167	33	17.950	2.735	18241	8	0.974	5.201	18315	8	14.590	6.298	18389	8	25.546	8.266
				18168	14	17.979	2.916	18242	11	1.686	5.967	18316	18	16.029	6.494	18390	18	0.294	9.400
				18169	8	19.985	2.295	18243	8	1.782	5.502	18317	8	16.706	6.555	18391	13	2.376	9.684
				18170	9	20.157	2.672	18244	24	2.835	5.846	18318	10	17.160	6.056	18392	8	3.196	9.364
				18171*	34	21.191	2.150	18245	8	2.875	5.614	18319	9	17.530	6.866	18393	20	3.486	9.798
				18172	8	21.857	2.292	18246	29	3.038	5.796	18320	8	18.496	6.862	18394	8	3.885	9.648
				18173	10	24.994	2.495	18247	11	3.216	5.577	18321	32	18.978	6.494	18395	12	4.788	9.228
				18174	28	25.184	2.384	18248	13	3.426	5.264	18322	8	20.404	6.411	18396	9	4.887	9.858
				18175	30	25.341	2.976	18249	11	3.435	5.506	18323	13	22.476	6.644	18397	8	5.376	9.302
				18176	18	0.314	3.536	18250	15	4.426	5.432	18324	8	23.245	6.156	18398	9	6.902	9.680
				18177	12	0.567	3.257	18251	11	5.644	5.902	18325	8	23.952	6.722	18399	8	8.271	9.150
				18178	17	1.092	3.898	18252	8	5.926	5.370	18326	21	24.210	6.363	18400	9	8.383	9.882
				18179	21	1.325	3.241	18253	8	7.800	5.346	18327	10	0.506	7.628	18401	10	10.678	9.888
				18180	15	1.475	3.974	18254	10	7.810	5.666	18328	9	1.848	7.528	18402	9	11.920	9.489
				18181	15	1.622	3.465	18255	16	10.946	5.635	18329	10	2.328	7.016	18403	13	12.164	9.120
				18182	10	1.655	3.386	18256	11	12.488	5.608	18330	12	3.694	7.725	18404	13	14.024	9.814
				18183	13	3.426	3.363	18257	10	12.919	5.307	18331	11	3.974	7.274	18405	9	14.112	9.664
				18184	12	3.883	3.698	18258	8	13.070	5.644	18332	8	5.479	7.408	18406	8	14.820	9.760
				18185	10	3.966	3.336	18259*	36	13.152	5.215	18333	9	5.899	7.154	18407	14	15.222	9.402
				18186	9	4.788	3.128	18260	12	13.206	5.230	18334	14	6.862	7.072	18408	17	16.248	9.412
				18187	9	4.904	3.792	18261	14	13.292	5.514	18335	23	7.486	7.452	18409	9	17.075	9.025
				18188	12	6.764	3.426	18262	13	14.313	5.614	18336	10	7.744	7.732	18410	8	17.714	9.298
				18189	20	7.906	3.714	18263	8	14.331	5.610	18337	12	7.970	7.125	18411	8	19.478	9.409
				18190	12	8.653	3.264	18264	17	15.054	5.834	18338	10	8.750	7.815	18412	18	19.536	9.506
				18191	10	8.862	3.826	18265	12	15.070	5.125	18339	8	10.070	7.104	18413	8	19.728	9.904
				18192	8	10.262	3.028	18266	22	15.399	5.062	18340	8	10.529	7.434	18414	26	19.800	9.249
				18193	12	10.485	3.042	18267	14	17.036	5.173	18341	13	13.002	7.486	18415	12	20.156	9.214
				18194	8	10.881	3.746	18268	12	18.671	5.326	18342	8	13.417	7.475	18416	8	20.305	9.694
				18195*	37	11.153	3.184	18269	13	20.268	5.496	18343	11	14.924	7.266	18417	11	20.602	9.624
				18196	8	11.514	3.152	18270	9	20.469	5.952	18344	9	15.006	7.651	18418	10	20.979	6.356
				18197	17	14.376	3.566	18271	20	20.472	5.470	18345	13	15.087	7.346	18419	21	21.282	9.188
				18198	9	16.195	3.539	18272	11	20.514	5.576	18346	11	15.390	7.522	18420	15	22.066	9.642
				18199	23	16.868	3.692	18273	16	21.264	5.906	18347	9	15.866	7.652	18421	23	22.318	9.794
				18200	34	17.722	3.308	18274	9	21.376	5.917	18348	18	17.281	7.004	18422	8	22.452	9.852
				18201	14	19.071	3.114	18275	19	22.026	5.084	18349	20	17.434	7.142	18423	8	22.676	9.585
				18202	8	19.178	3.423	18276	27	22.456	5.324	18350	8	17.548	7.240	18424	9	22.862	9.865
				18203	12	19.602	3.104	18277	10	22.643	5.855	18351	8	17.922	7.208	18425	8	22.916	9.406
				18204	14	19.672	3.638	18278	10	23.026	5.739	18352	16	18.058	7.466	18426	9	23.274	9.986
				18205	8	20.634	3.504	18279	9	23.175	5.669	18353	23	18.327	7.837	18427*	40	23.320	9.888
				18206	10	20.664	3.409	18280	8	23.607	5.485	18354	10	18.543	7.882	18428	17	23.546	9.641
				18207	8	21.075	3.343	18281	8	23.874	5.553	18355	15	19.071	7.630	18429	26	23.908	9.134
				18208	8	22.909	3.316	18282	10	24.032	5.016	18356	19	19.385	7.104	18430	12	24.164	9.575
				18209	9	1													



18435	8	25.544	9.798	18509	12	14.221	12.848	18583	9	11.364	14.120	18657	11	14.624	16.328	18731	20	5.933	18.750
18436	19	0.217	10.386	18510	12	14.304	12.172	18584	8	11.453	14.585	18658*	40	14.757	16.468	18732	10	6.347	18.806
18437	13	1.828	10.326	18511	20	15.720	12.264	18585	8	11.580	14.073	18659	22	15.002	16.168	18733	8	6.953	18.372
18438	13	2.906	10.754	18512	8	16.710	12.467	18586	22	12.940	14.222	18660	8	15.130	16.825	18734	11	7.440	18.214
18439	22	3.919	10.024	18513	10	17.776	12.248	18587	9	14.238	14.176	18661	17	15.528	16.333	18735	9	7.882	18.178
18440	10	4.214	10.109	18514	8	17.842	12.610	18588	8	14.684	14.530	18662*	29	16.313	16.250	18736	8	8.349	18.094
18441	29	4.494	10.802	18515	10	18.115	12.564	18589	9	14.834	14.358	18663*	37	16.870	16.650	18737	8	8.542	18.930
18442	10	5.242	10.170	18516	9	18.328	12.286	18590*	60	15.260	14.454	18664	8	16.878	16.976	18738	15	8.814	18.668
18443	8	5.464	10.644	18517	10	18.440	12.636	18591	12	15.407	14.282	18665	10	17.514	16.415	18739	12	9.102	18.765
18444	12	6.300	10.569	18518	11	19.224	12.724	18592	8	15.449	14.043	18666	20	19.199	16.808	18740	8	9.799	18.259
18445	23	7.282	10.302	18519	9	20.677	12.931	18593	13	16.146	14.740	18667	8	19.350	16.396	18741	9	9.824	18.350
18446	12	8.204	10.100	18520	8	20.708	12.398	18594	21	16.970	14.084	18668	11	19.805	16.251	18742	8	10.179	18.048
18447	13	10.614	10.494	18521	10	21.318	12.597	18595	9	18.183	14.326	18669	8	21.104	16.314	18743	18	10.486	18.858
18448	8	12.740	10.246	18522	9	21.328	12.287	18596*	34	18.282	14.766	18670	10	21.887	16.615	18744	16	12.188	18.017
18449	11	13.574	10.128	18523	12	21.561	12.546	18597	8	18.666	14.333	18671*	35	23.944	16.275	18745	9	13.579	18.729
18450*	45	15.269	10.102	18524	21	21.597	12.680	18598*	46	18.700	14.155	18672	12	24.038	16.692	18746	12	14.265	18.946
18451	9	15.522	10.779	18525*	22	21.658	12.553	18599	15	19.048	14.457	18673	8	25.490	16.884	18747	17	18.526	18.047
18452	16	15.879	10.417	18526	18	21.687	12.361	18600	21	20.238	14.946	18674	16	0.000	17.266	18748*	36	20.304	18.656
18453	20	16.035	10.670	18527*	53	21.704	12.644	18601	17	21.330	14.082	18675	11	0.506	17.503	18749	8	20.641	18.696
18454	19	16.500	10.488	18528	11	21.769	12.315	18602	17	23.508	14.276	18676	10	0.960	17.757	18750	8	20.717	18.822
18455	8	19.751	10.784	18529*	29	21.846	12.674	18603	8	24.124	14.678	18677	9	1.053	17.852	18751*	34	20.729	18.434
18456	14	20.210	10.790	18530	12	22.883	12.674	18604	17	24.300	14.570	18678	21	1.634	17.423	18752	16	21.407	18.244
18457	19	21.855	10.894	18531	9	23.639	12.864	18605	8	25.424	14.556	18679	8	2.204	17.385	18753	8	22.280	18.261
18458	9	21.952	10.000	18532	20	24.580	12.756	18606	18	1.244	15.546	18680	12	2.269	17.355	18754	8	22.472	18.644
18459	8	21.982	10.745	18533	9	24.638	12.252	18607	11	3.022	15.436	18681	11	2.288	17.930	18755	12	22.674	18.744
18460	35	22.084	10.272	18534	12	25.199	12.099	18608	8	8.218	15.023	18682	8	2.410	17.454	18756	15	23.350	18.948
18461	22	22.474	10.722	18535	36	25.350	12.936	18609	9	9.072	15.306	18683	21	2.731	17.418	18757	16	23.350	18.000
18462	10	23.265	10.063	18536	15	2.126	13.414	18610	8	9.276	15.324	18684	8	3.035	17.175	18758	12	23.482	18.056
18463	9	24.005	10.687	18537	9	2.229	13.706	18611	9	9.427	15.644	18685	8	4.740	17.205	18759	14	23.898	18.336
18464	8	24.160	10.104	18538	12	2.270	13.901	18612	12	9.636	15.178	18686	9	5.151	17.199	18760	21	24.082	18.618
18465	18	24.264	10.387	18539	8	3.398	13.797	18613	12	10.492	15.007	18687	8	5.384	17.353	18761	10	0.064	19.219
18466	8	25.507	10.365	18540	13	3.464	13.926	18614	8	12.215	15.119	18688	10	6.133	17.524	18762	15	0.205	19.088
18467	13	3.464	11.718	18541*	21	3.807	13.296	18615	15	12.311	15.864	18689	10	6.210	17.736	18763	14	1.358	19.904
18468	10	3.602	11.352	18542	10	4.544	13.240	18616	8	13.338	15.420	18690	10	6.302	17.245	18764	23	3.454	19.309
18469	16	4.792	11.720	18543	20	5.512	13.534	18617	13	14.674	15.667	18691	19	6.853	17.493	18765	21	3.788	19.038
18470	12	4.888	11.780	18544	14	5.595	13.862	18618	8	16.430	15.380	18692	8	8.324	17.350	18766	8	4.416	19.369
18471	14	6.030	11.790	18545	8	5.623	13.420	18619	8	16.755	15.513	18693	21	8.974	17.433	18767*	35	4.756	19.052
18472	8	8.542	11.176	18546	8	6.106	13.074	18620	16	16.949	15.854	18694	15	9.505	17.544	18768	26	4.935	19.224
18473	10	11.104	11.274	18547	12	6.336	13.062	18621	17	17.016	15.087	18695	22	9.981	17.648	18769	8	5.500	19.870
18474	9	12.250	11.106	18548	11	6.530	13.850	18622	10	17.280	15.232	18696	11	10.048	17.874	18770	12	7.848	19.956
18475	12	15.027	11.386	18549	9	6.666	13.888	18623	8	21.473	15.439	18697	13	10.786	17.030	18771	9	8.084	19.534
18476	8	15.466	11.394	18550	14	7.546	13.164	18624	17	21.978	15.302	18698	9	11.742	17.060	18772	8	9.290	19.294
18477	8	15.486	11.372	18551	8	7.548	13.594	18625	11	23.443	15.833	18699	9	12.206	17.120	18773	13	9.362	19.846
18478	10	15.874	11.250	18552	14	8.673	13.665	18626	15	23.648	15.696	18700	10	12.326	17.266	18774	8	9.508	19.381
18479	8	16.536	11.043	18553	9	10.004	13.808	18627	9	23.821	15.316	18701	8	12.772	17.880	18775	17	9.774	19.907
18480	17	17.482	11.364	18554	12	10.118	13.648	18628	8	24.250	15.785	18702	14	12.826	17.011	18776	10	10.054	19.866
18481*	43	17.608	11.168	18555	8	10.236	13.458	18629	8	24.861	15.432	18703	10	13.774	17.886	18777	8	10.118	19.733
18482	23	18.898	11.818	18556	8	12.670	13.678	18630	8	25.281	15.450	18704	13	13.891	17.730	18778	10	10.236	19.920
18483*	25	19.002	11.528	18557	16	12.687	13.754	18631	10	0.284	16.306	18705	9	15.315	17.208	18779	12	10.306	19.985
18484	8	20.066	11.585	18558	12	15.338	13.562	18632	13	0.766	16.158	18706	27	15.832	17.524	18780	13	10.736	19.400
18485	9	20.091	11.322	18559	10	15.672	13.429	18633	13	1.371	16.266	18707*	35	15.987	17.153	18781	9	11.167	19.198
18486	8	20.860	11.918	18560	18	17.885	13.684	18634	9	1.534	16.218	18708	10	16.862	17.809	18782	11	13.149	19.754
18487	8	21.558	11.429	18561	14	18.230	13.643	18635	12	1.850	16.746	18709	8	17.416	17.567	18783	16	13.662	19.728
18488	28	21.785	11.263	18562	8	18.588	13.215	18636	13	2.037	16.366	18710	11	17.893	17.994	18784	8	16.418	19.412
18489	8	22.024	11.741	18563	8	20.796	13.636	18637	8	3.106	16.378	18711	20	18.202	17.346	18785	15	16.434	19.318
18490	10	23.242	11.540	18564	25	21.318	13.158	18638	10	3.246	16.676	18712	20	18.534	17.262	18786	19	17.698	19.922
18491	8	23.458	11.038	18565	20	22.549	13.492	18639	8	3.287	16.422	18713	8	20.525	17.160	18787	8	18.254	19.813
18492	9	23.816	11.293	18566	8	0.956	14.067	18640	14	3.902	16.483	18714	8	21.834	17.272	18788	20	18.859	19.170
18493	13	25.468	11.255	18567	9	1.196	14.824	18641	10	4.524	16.355	18715	9	21.900	17.614	18789	9	19.658	19.602
18494	11	0.084	12.874	18568	12	1.400	14.433	18642	8	4.742	16.104	18716	9	23.654	17.564	18790	12	21.382	19.390
18495	8	2.703	12.392	18569	14	1.563	14.527	18643	12	4.820	16.100	18717	10	23.922	17.530	18791	30	21.626	19.412
18496	12	2.892	12.840	18570	21	1.900	14.627	18644	21	5.535	16.809	18718	12	24.386	17.217	18792	8	21.794	19.794
18497	10	3.100	12.194	18571	8	2.36													



18805	8	4.530	20.313	18879	9	3.458	22.273	18953	12	25.953	23.686	19106	24	25.932	1.661
18806	9	5.438	20.592	18880	11	3.468	22.638	18954	13	0.206	24.490	19107	16	25.948	1.724
18807	11	5.944	20.396	18881	8	3.600	22.749	18955	8	0.265	24.316	19108	13	1.374	2.142
18808	12	6.042	20.608	18882	22	3.754	22.699	18956	11	0.406	24.134	19109	13	2.292	2.734
18809	8	6.686	20.190	18883	15	4.049	22.048	18957	8	1.573	24.448	19110*	49	2.475	2.608
18810*	44	7.045	20.357	18884	10	4.108	22.296	18958	12	1.619	24.590	19111	15	3.092	2.656
18811	8	8.567	20.332	18885	12	4.124	22.262	18959	8	4.514	24.066	19112	27	4.214	2.211
18812*	86	9.150	20.680	18886	12	4.424	22.744	18960	9	4.732	24.475	19113	13	4.786	2.276
18813	10	9.589	20.217	18887	14	4.728	22.518	18961	9	4.820	24.446	19114	10	5.360	2.765
18814	12	12.546	20.376	18888	8	4.824	22.524	18962	16	6.797	24.626	19115	32	5.490	2.125
18815	8	12.664	20.887	18889	11	5.286	22.834	18963	24	7.316	24.604	19116	17	6.456	2.384
18816	8	13.808	20.425	18890	8	7.345	22.978	18964	33	7.805	24.322	19117	13	6.656	2.156
18817	9	14.083	20.432	18891	9	8.068	22.488	18965	8	8.464	24.856	19118	37	7.696	2.718
18818	12	16.000	20.626	18892	9	8.394	22.919	18966	8	10.638	24.415	19119	22	8.555	2.546
18819	14	16.968	20.152	18893	8	10.508	22.791	18967	10	11.078	24.667	19120	18	9.492	2.104
18820	13	18.252	20.239	18894	23	10.704	22.866	18968	9	11.876	24.905	19121	8	9.872	2.486
18821*	34	18.826	20.313	18895	13	11.028	22.436	18969	12	13.016	24.864	19122	27	11.500	2.888
18822	12	20.706	20.657	18896	10	11.800	22.692	18970	8	13.045	24.287	19123	15	12.152	2.568
18823	24	21.388	20.878	18897	20	13.100	22.674	18971	11	13.364	24.925	19124	18	12.662	2.258
18824	12	22.808	20.258	18898	20	13.586	22.498	18972	16	13.916	24.480	19125	20	13.207	2.304
18825	17	22.944	20.405	18899	8	15.238	22.654	18973	8	14.671	24.934	19126	10	13.546	2.764
18826	33	23.958	20.448	18900*	33	17.054	22.164	18974	13	14.983	24.163	19127	18	13.742	2.254
18827	11	24.848	20.828	18901	20	17.076	22.835	18975	8	15.931	24.964	19128	10	13.986	2.608
18828	12	25.335	20.728	18902	8	17.346	22.270	18976	26	16.992	24.055	19129	23	14.446	2.114
18829	10	1.232	21.328	18903	12	17.642	22.848	18977	21	17.178	24.126	19130	11	14.601	2.624
18830	8	1.748	21.363	18904	24	19.915	22.086	18978	12	17.332	24.758	19131	16	15.770	2.350
18831	13	1.826	21.850	18905	3	20.206	22.474	18979	8	17.654	24.404	19132	16	17.257	2.664
18832	17	1.984	21.116	18906*	39	20.398	22.225	18980	13	17.882	24.922	19133	19	18.942	2.952
18833	32	2.224	21.970	18907	11	21.142	22.636	18981	28	20.858	24.162	19134	25	19.095	2.993
18834	20	2.883	21.663	18908	8	21.296	22.955	18982	14	21.840	24.652	19135*	39	19.157	2.905
18835	10	3.444	21.216	18909	22	21.404	22.824	18983	25	22.308	24.994	19136	9	19.266	2.954
18836	8	3.459	21.190	18910	19	21.922	22.732	18984	9	22.484	24.600	19137	14	19.484	2.012
18837	26	3.628	21.692	18911	8	23.228	22.644	18985	11	22.576	24.616	19138	18	20.555	2.543
18838	8	4.220	21.966	18912	12	23.766	22.666	18986	19	23.138	24.063	19139*	67	20.594	2.122
18839	8	4.340	21.860	18913	8	25.570	22.880	18987	15	25.968	24.166	19140	15	20.898	2.123
18840	16	4.458	21.703	18914	30	0.174	23.006	18988	14	0.844	25.698	19141	21	21.183	2.940
18841	8	4.658	21.122	18915	9	0.460	23.603	18989	8	0.862	25.332	19142	11	21.368	2.545
18842	19	5.194	21.634	18916	14	0.974	23.147	18990	14	1.336	25.710	19143	46	21.400	2.835
18843	8	6.690	21.634	18917	8	1.493	23.715	18991	8	1.430	24.506	19144	11	21.534	2.808
18844	12	6.952	21.446	18918	12	1.494	23.634	18992	12	1.687	25.500	19145	21	22.066	2.034
18845	13	7.400	21.263	18919*	41	2.046	23.342	18993	12	2.568	25.568	19146	21	22.371	2.634
18846	9	7.788	21.584	18920	10	3.299	23.160	18994	8	3.798	25.602	19147	11	24.870	2.887
18847	9	8.760	21.260	18921	13	3.340	23.253	18995	19	4.314	25.546	19148	11	25.032	2.995
18848	10	8.786	21.941	18922	12	3.381	23.286	18996	14	4.684	25.100	19149	24	25.220	2.364
18849	12	9.104	21.160	18923	20	3.876	23.182	18997	11	5.914	25.242	19150	31	25.258	2.996
18850	8	10.064	21.620	18924	8	4.030	23.111	18998	11	6.350	25.710	19151	48	2.644	3.206
18851	12	10.162	21.256	18925	10	4.515	23.912	18999	8	8.776	25.692	19152	34	4.858	3.477
18852	13	10.178	21.482	18926	8	5.029	23.818	19000	8	8.890	25.980	19153	24	5.469	3.644
18853	10	12.173	21.324	18927*	55	6.030	23.956	19001	18	9.626	25.186	19154	8	5.746	3.026
18854	15	12.983	21.348	18928*	67	6.374	23.756	19002	8	10.081	25.977	19155	24	6.198	3.884
18855	11	14.388	21.445	18929	12	7.364	23.550	19003	9	10.288	25.948	19156	21	7.274	3.550
18856	8	15.625	21.772	18930	10	7.460	23.892	19004	12	10.700	25.120	19157	22	8.088	3.714
18857	12	15.866	21.772	18931	31	7.794	23.818	19005	8	10.908	25.256	19158	14	8.124	3.926
18858	12	16.231	21.978	18932	10	9.046	23.350	19006	29	11.214	25.012	19159	12	8.603	3.064
18859	8	17.597	21.253	18933	8	9.263	23.190	19007	25	11.644	25.479	19160	11	8.980	3.410
18860	8	17.864	21.462	18934	8	10.032	23.786	19008	8	11.833	25.866	19161*	51	9.364	3.314
18861	8	18.178	21.966	18935	10	11.111	23.098	19009	9	12.864	25.260	19162	13	9.584	3.220
18862	34	18.970	21.276	18936	9	13.630	23.799	19010	8	12.934	25.206	19163	9	9.824	3.196
18863	14	20.255	21.016	18937	13	13.754	23.781	19011	8	13.397	25.714	19164	10	10.309	3.035
18864	18	20.274	21.937	18938	20	14.074	23.617	19012	10	14.404	25.599	19165	27	10.814	3.656
18865	19	21.416	21.322	18939	8	14.546	23.800	19013	9	16.840	25.850	19166	10	11.994	3.250
18866	28	21.969	21.824	18940	12	14.730	23.870	19014	10	19.264	25.280	19167	8	12.025	3.732
18867	14	22.620	21.632	18941	24	15.067	23.981	19015*	38	19.640	25.215	19168	24	12.410	3.098
18868	8	22.668	21.854	18942	21	16.235	23.290	19016	34	20.076	25.360	19169	15	13.492	3.958
18869	9	22.830	21.004	18943	22	16.992	23.795	19017	13	20.838	25.080	19170	25	14.285	3.295
18870	13	23.883	21.128	18944	20	17.366	23.966	19018	8	23.200	25.214	19171	9	15.175	3.336
18871	9	24.988	21.011	18945	9	17.763	23.691	19019*	48	23.980	25.049	19172*	52	15.925	3.369
18872	10	25.714	21.515	18946	14	18.364	23.446	19020	40	25.064	25.068	19173	15	16.054	3.488
18873	8	0.308	22.014	18947	10	18.530	23.246	19021	21	25.223	25.650	19174	23	16.068	3.764
18874	8	1.272	22.652	18948	17	19.216	23.592	19022	10	25.682	25.091	19175	37	17.105	3.997
18875	11	1.833	22.524	18949	8	19.873	23.808					19176	19	17.128	3.376
18876	11	2.126	22.798	18950	20	20.036	23.684					19177	23	17.603	3.064
18877	17	3.284	22.370	18951	12	23.322	23.033					19178	9	18.575	3.898
18878	8	3.424	22.685	18952	9	24.760	23.352					19179	26	18.638	3.456

R.A. 7<sup>h</sup> 32<sup>m</sup>

Plate 432; 1915 Jan. 10.

Provisional Constants.

A	B	C
-0.1762	+0.00936	-0.0669

D	E	F
-0.00925	-0.1783	+0.2740

Mag. = 17.1 - 1.09√d

No.	d	x	y
19050	26	0.676	0.098
19051	27	2.835	0.092
19052	18	3.492	0.884
19053	12	3.514	0.395
19054	12	4.182	0.244
19055*	90	6.184	0.884
19056	10	7.614	0.875
19057	14	8.190	0.741
19058	23	8.716	0.488
19059	23	8.962	0.255
19060	23	10.482	0.367
19061	30	11.324	0.600
19062	19	11.752	0.657
19063	11	12.519	0.707
19064	36	13.710	0.002
19065	15	14.344	0.802
19066	10	14.602	0.129
19067	28	15.412	0.384
19068	34	15.525	0.344
19069	20	15.632	0.099
19070	26	16.552	0.237
19071	22	16.957	0.699
19072	19	18.852	0.916
19073	30	23.087	0.002
19074	20	24.330	0.174
19075	40	24.376	0.242
19076	40	24.643	0.066
19077	19	1.624	1.942
19078	18	3.652	1.150
19079	14	4.106	1.839
19080	21	4.146	1.394
19081	10	4.920	1.550
19082	19	5.056	1.316
19083	20	5.494	1.276
19084	17	6.620	1.507
19085	26	7.095	1.401
19086	16	8.077	1.256
19087	38	8.315	1.425
19088	24	8.926	1.222
19089	40	9.684	1.129
19090	34	10.364	1.076
19091	9	10.400	1.766
19092	9	10.945	1.895
19093*	53	12.224	1.834
19094	23	13.454	1.426
19095	30	14.305	1.434
19096	24	17.802	1.945
19097	34	19.675	1.686
19098	46	20.411	1.554
19099	18	20.726	1.227
19100	30	21.199	1.549
19101	20	21.712	1.670
19102	11	23.078	1.906
19103	21	23.878	1.923
19104	10	24.276	1.336
19105	42	25.726	1.591



19180	26	19.115	3.206	19254	12	3.297	5.730	19328	8	21.309	6.382	19402	9	22.241	8.136	19476	16	14.172	10.932
19181*	58	19.540	3.461	19255	10	3.363	5.255	19329	21	21.494	6.526	19403	13	23.920	8.932	19477	8	14.204	10.126
19182	22	20.450	3.902	19256	14	4.624	5.038	19330	19	21.740	6.026	19404	33	24.170	8.618	19478	10	14.666	10.853
19183	30	20.864	3.766	19257	8	5.742	5.062	19331	22	22.585	6.186	19405	25	24.442	8.975	19479	11	16.292	10.210
19184	10	21.356	3.398	19258	9	8.052	5.451	19332	14	23.583	6.035	19406	9	24.793	8.844	19480	19	18.166	10.094
19185	20	21.563	3.644	19259	15	8.336	5.134	19333	19	23.628	6.895	19407	8	25.695	8.858	19481	11	18.425	10.553
19186	16	21.977	3.642	19260	24	8.799	5.787	19334	21	25.975	6.986	19408	10	0.077	9.852	19482	11	18.788	10.462
19187	13	22.766	3.386	19261	30	9.521	5.226	19335	17	0.058	7.825	19409	26	0.944	9.894	19483	19	19.494	10.484
19188	38	23.094	3.620	19262	8	9.866	5.336	19336	13	0.154	7.604	19410	9	1.006	9.184	19484	13	19.948	10.763
19189	23	25.130	3.624	19263	10	10.036	5.344	19337	9	2.293	7.630	19411	35	1.296	9.384	19485	13	20.078	10.986
19190	12	25.370	3.598	19264	18	10.114	5.637	19338	9	2.816	7.586	19412	21	1.558	9.820	19486	14	22.186	10.300
19191	27	0.695	4.972	19265	29	10.760	5.724	19339	8	4.324	7.216	19413	16	1.561	9.743	19487	18	22.742	10.645
19192	15	2.680	4.650	19266	9	11.185	5.456	19340	26	4.368	7.826	19414	23	1.626	9.545	19488	21	23.018	10.510
19193	12	2.813	4.370	19267	13	12.536	5.640	19341	12	8.326	7.826	19415	22	2.485	9.776	19489	12	24.054	10.108
19194	19	3.422	4.892	19268	21	12.846	5.846	19342	9	8.994	7.362	19416	13	5.816	9.885	19490	15	24.431	10.738
19195	12	3.458	4.688	19269	12	12.892	5.046	19343	8	9.322	7.486	19417	16	7.434	9.469	19491	21	24.830	10.310
19196	14	3.735	4.047	19270	8	13.487	5.674	19344	21	10.060	7.378	19418	22	7.536	9.335	19492	14	0.667	11.800
19197	12	6.071	4.893	19271	11	14.225	5.450	19345	23	10.613	7.538	19419	21	8.648	9.446	19493	23	1.297	11.996
19198	9	7.750	4.634	19272	14	14.564	5.182	19346	22	11.606	7.482	19420	22	9.776	9.962	19494	20	2.885	11.479
19199	18	8.012	4.916	19273	9	14.718	5.559	19347	19	11.806	7.788	19421	11	10.828	9.544	19495	20	4.360	11.522
19200	25	8.588	4.485	19274	23	15.102	5.114	19348	9	11.982	7.674	19422	8	10.856	9.185	19496	24	7.990	11.723
19201	22	8.733	4.184	19275	14	16.943	5.962	19349	8	12.701	7.984	19423*	62	11.730	9.070	19497	34	8.134	11.390
19202	14	8.880	4.106	19276	29	18.686	5.124	19350	11	14.085	7.836	19424	38	11.967	9.206	19498*	51	8.360	11.735
19203	36	9.464	4.800	19277	24	18.785	5.078	19351	20	15.190	7.088	19425	39	12.998	9.933	19499	22	8.394	11.587
19204	11	9.900	4.365	19278	9	18.811	5.878	19352	24	16.115	7.917	19426	23	15.224	9.605	19500	18	8.973	11.187
19205	20	10.817	4.922	19279	12	19.336	5.206	19353	24	16.270	7.234	19427	15	15.758	9.154	19501	23	11.351	11.238
19206	15	10.884	4.290	19280	20	19.348	5.518	19354	13	16.300	7.759	19428	8	15.954	9.512	19502	11	11.374	11.071
19207	17	11.034	4.892	19281	14	19.656	5.950	19355	8	16.623	7.241	19429	20	16.820	9.330	19503	15	12.235	11.667
19208	19	11.795	4.738	19282	15	19.869	5.621	19356	13	17.107	7.436	19430	18	17.506	9.648	19504	22	14.043	11.020
19209	24	12.863	4.094	19283	20	19.946	5.876	19357	13	17.535	7.893	19431	18	18.652	9.793	19505	13	14.316	11.087
19210	20	12.900	4.990	19284	16	20.356	5.688	19358	18	18.892	7.878	19432	14	18.702	9.956	19506	11	14.316	11.032
19211	24	13.904	4.808	19285	24	21.387	5.256	19359	8	19.184	7.803	19433	8	19.614	9.189	19507	29	14.398	11.964
19212*	27	14.405	4.894	19286	17	21.486	5.185	19360	16	19.314	7.076	19434	16	20.838	9.806	19508	14	14.656	11.985
19213	13	15.103	4.430	19287	20	21.524	5.472	19361	8	19.455	7.275	19435	22	21.460	9.690	19509	14	14.756	11.096
19214	25	15.445	4.446	19288	14	22.094	5.266	19362	22	19.612	7.252	19436	8	22.096	9.608	19510	21	14.997	11.436
19215*	43	15.475	4.144	19289	28	22.328	5.779	19363	29	19.711	7.806	19437	18	22.818	9.999	19511	15	15.404	11.572
19216	30	15.765	4.936	19290	24	23.850	5.316	19364	20	21.236	7.898	19438	8	22.900	9.386	19512	17	15.636	11.655
19217	23	17.051	4.660	19291	20	24.336	5.636	19365	13	21.616	7.902	19439	21	22.960	9.082	19513	16	15.850	11.833
19218	12	17.304	4.788	19292	24	25.407	5.601	19366	12	22.042	7.926	19440	18	25.348	9.206	19514	20	16.516	11.962
19219	24	18.016	4.394	19293	9	0.594	6.416	19367	10	22.279	7.224	19441	17	0.671	10.322	19515	8	16.644	11.826
19220	20	18.415	4.896	19294	18	1.306	6.970	19368	18	23.316	7.300	19442	12	0.672	10.246	19516	17	16.862	11.626
19221	15	19.300	4.585	19295	40	1.564	6.608	19369	37	24.426	7.274	19443*	54	0.715	10.146	19517	13	16.947	11.904
19222	11	19.893	4.357	19296	14	3.735	6.524	19370	17	24.835	7.206	19444	14	1.418	10.936	19518	8	17.412	11.958
19223	14	20.099	4.673	19297	14	4.038	6.396	19371	12	24.964	7.992	19445	23	1.673	10.634	19519	20	19.030	11.600
19224	27	20.174	4.756	19298	21	4.422	6.586	19372	18	25.473	7.174	19446	11	1.754	10.214	19520	9	19.662	11.575
19225	13	20.240	4.474	19299	13	4.812	6.543	19373*	45	1.804	8.496	19447	9	2.084	10.825	19521	31	19.903	11.186
19226	8	20.346	4.772	19300	8	5.446	6.359	19374	9	2.926	8.488	19448	15	2.920	10.590	19522	17	19.928	11.352
19227	31	20.424	4.195	19301	8	5.446	6.108	19375	20	3.282	8.146	19449	8	2.948	10.023	19523	8	20.183	11.183
19228	13	20.526	4.052	19302	13	7.578	6.894	19376	28	4.195	8.896	19450	8	3.053	10.485	19524	26	20.328	11.887
19229	11	20.546	4.836	19303	18	8.268	6.996	19377	21	4.200	8.756	19451	11	3.504	10.194	19525	8	20.429	11.007
19230	23	20.688	4.259	19304	18	8.280	6.003	19378	17	4.234	8.732	19452	20	3.528	10.174	19526	8	21.288	11.914
19231	12	20.710	4.526	19305	19	8.614	6.904	19379	10	5.234	8.535	19453	33	5.528	10.957	19527	26	21.476	11.262
19232	34	20.752	4.304	19306	14	8.698	6.724	19380	11	6.045	8.445	19454	26	6.692	10.666	19528	21	21.714	11.606
19233	35	20.954	4.794	19307	11	8.854	6.803	19381	38	6.129	8.544	19455	22	6.696	10.600	19529	19	23.565	11.444
19234	23	21.308	4.234	19308	31	8.928	6.042	19382	17	7.204	8.594	19456	8	7.300	10.605	19530	10	23.973	11.076
19235	25	21.506	4.136	19309	17	9.599	6.660	19383	20	8.724	8.944	19457	8	7.414	10.933	19531	33	24.374	11.116
19236	19	21.510	4.948	19310	24	10.402	6.596	19384	9	8.966	8.610	19458	12	7.670	10.690	19532	35	24.388	11.652
19237	13	21.966	4.684	19311	12	10.829	6.176	19385	14	9.628	8.062	19459	23	7.708	10.256	19533	8	24.454	11.416
19238	15	22.452	4.512	19312	8	11.340	6.186	19386	21	10.148	8.964	19460	10	8.298	10.824	19534	10	25.601	11.698
19239	30	22.471	4.466	19313	17	11.847	6.437	19387	9	10.872	8.614	19461	26	9.323	10.698	19535	72	25.976	11.805
19240	27	22.815	4.942	19314	8	14.854	6.526	19388	19	11.500	8.708	19462	19	10.062	10.594	19536	19	0.323	12.936
19241*	59	22.921	4.934	19315	12	15.986	6.125	19389	22	12.025	8.572	19463	36	10.217	10.004	19537	13	1.202	12.016
19242	14	24.311	4.736	19316	18	18.616	6.637	19390	16	12.510	8.229	19464	12	10.402	10.779	19538	23	2.021	12.996
19243	29																		



19550	15	10.666	12.669	19624	18	24.176	13.313	19698	13	15.560	15.400	19772	24	7.684	17.600	19846	15	5.203	19.411
19551	12	10.670	12.907	19625	8	24.234	13.617	19699	19	15.776	15.494	19773	16	8.226	17.542	19847	12	5.707	19.880
19552	18	10.924	12.222	19626	10	25.544	13.607	19700	12	15.795	15.746	19774	18	8.242	17.548	19848	17	6.880	19.477
19553*	41	11.076	12.197	19627	23	0.970	14.530	19701	9	16.174	15.828	19775	22	8.458	17.181	19849	12	7.181	19.463
19554	12	11.856	12.178	19628	12	1.592	14.924	19702	8	16.377	15.632	19776	21	8.684	17.150	19850	10	7.500	19.728
19555*	60	12.215	12.574	19629	26	1.774	14.814	19703*	52	16.530	15.193	19777	8	8.806	17.101	19851	19	7.704	19.240
19556	19	12.975	12.426	19630	8	2.894	14.783	19704	20	17.190	15.864	19778	13	9.160	17.662	19852	11	7.838	19.500
19557	13	13.075	12.364	19631	17	3.914	14.535	19705	15	18.170	15.146	19779	16	9.372	17.152	19853	18	8.417	19.728
19558	15	13.296	12.926	19632	13	4.452	14.167	19706	10	19.424	15.944	19780	12	9.665	17.494	19854	26	8.653	19.362
19559	16	15.075	12.863	19633	9	4.930	14.056	19707	23	20.826	15.516	19781	21	9.769	17.906	19855	25	8.770	19.342
19560	13	15.564	12.350	19634	19	5.790	14.610	19708	18	21.611	15.936	19782	18	10.714	17.736	19856	24	9.704	19.450
19561	8	16.398	12.194	19635	8	5.932	14.268	19709	21	21.730	15.382	19783	18	11.584	17.770	19857	9	9.945	19.906
19562	20	17.582	12.373	19636	17	6.008	14.054	19710	21	22.136	15.300	19784	12	11.826	17.215	19858	19	10.442	19.206
19563	27	17.642	12.850	19637	16	7.816	14.004	19711	9	22.720	15.434	19785	15	12.300	17.455	19859	25	10.466	19.695
19564	11	18.315	12.426	19638	21	7.971	14.724	19712	26	22.824	15.746	19786	14	12.576	17.536	19860	13	12.140	19.348
19565	24	18.657	12.945	19639	15	9.183	14.432	19713*	40	22.958	15.636	19787	9	13.650	17.900	19861*	58	12.225	19.864
19566	12	18.761	12.653	19640	11	9.270	14.954	19714	13	23.402	15.804	19788	8	14.791	17.086	19862	16	12.270	19.814
19567	12	19.778	12.142	19641	17	11.580	14.653	19715	11	24.636	15.686	19789	10	16.050	17.097	19863	8	12.372	19.201
19568	14	19.898	12.725	19642	16	12.097	14.421	19716	12	24.967	15.826	19790	9	16.492	17.364	19864	8	14.402	19.536
19569	18	20.091	12.422	19643	26	12.636	14.490	19717	17	25.008	15.166	19791	8	17.378	17.616	19865	26	17.016	19.118
19570	12	20.654	12.204	19644	8	12.790	14.015	19718	12	0.927	16.087	19792	8	17.930	17.642	19866	19	17.046	19.967
19571	17	20.906	12.252	19645	16	14.506	14.004	19719*	41	1.435	16.524	19793	37	19.143	17.704	19867	8	17.078	19.692
19572	16	21.416	12.966	19646	13	14.618	14.394	19720	13	1.536	16.937	19794	33	19.967	17.235	19868	9	17.152	19.513
19573	14	22.290	12.036	19647	24	14.822	14.430	19721	20	5.391	16.429	19795	10	19.973	17.682	19869	18	17.276	19.966
19574	19	22.449	12.308	19648	21	15.197	14.884	19722	26	5.664	16.950	19796	21	20.044	17.378	19870	9	17.898	19.451
19575	15	22.600	12.658	19649*	47	17.610	14.339	19723	10	7.090	16.627	19797	16	22.600	17.084	19871	12	18.856	19.792
19576*	44	23.088	12.195	19650	26	17.670	14.064	19724*	51	8.686	16.280	19798	22	22.750	17.570	19872	17	20.146	19.029
19577	15	23.104	12.564	19651	18	18.454	14.913	19725	20	8.720	16.060	19799	19	23.516	17.846	19873	23	20.824	19.263
19578	19	23.294	12.104	19652	17	19.378	14.855	19726	38	8.871	16.370	19800	19	24.295	17.824	19874	21	21.913	19.344
19579	22	23.766	12.216	19653	34	20.295	14.244	19727*	77	9.290	16.874	19801	13	24.454	17.620	19875	25	22.739	19.820
19580	10	23.867	12.736	19654	8	20.526	14.308	19728	22	9.906	16.364	19802	9	24.996	17.235	19876	25	22.870	19.152
19581	17	24.330	12.354	19655	9	20.612	14.040	19729	21	10.284	16.332	19803	21	0.865	18.254	19877	19	23.492	19.984
19582	10	25.272	12.418	19656	22	20.704	14.608	19730	8	10.826	16.380	19804	12	1.003	18.312	19878	11	24.320	19.032
19583	10	25.522	12.004	19657	10	20.708	14.993	19731	8	10.954	16.760	19805	25	1.310	18.835	19879	38	24.724	19.112
19584	22	25.561	12.816	19658	17	20.804	14.646	19732	12	11.020	16.546	19806	22	1.420	18.584	19880	20	24.799	19.430
19585	29	0.002	13.760	19659	22	20.915	14.258	19733	11	11.285	16.208	19807	27	1.608	18.864	19881	10	25.754	19.496
19586	11	1.082	13.116	19660	37	22.525	14.634	19734	17	12.028	16.702	19808	18	2.110	18.168	19882	19	25.757	19.536
19587	12	2.294	13.732	19661	12	22.614	14.044	19735	9	13.044	16.942	19809	20	2.142	18.214	19883	10	25.768	19.572
19588*	45	2.793	13.165	19662	25	23.328	14.312	19736	31	14.229	16.229	19810	30	3.694	18.092	19884	9	25.778	19.574
19589	14	3.690	13.619	19663	12	23.642	14.940	19737	11	14.758	16.975	19811	8	4.019	18.156	19885	17	0.360	20.522
19590*	45	4.495	13.713	19664	28	24.198	14.570	19738	8	16.234	16.249	19812	19	4.120	18.868	19886	22	0.499	20.666
19591	8	4.587	13.580	19665	13	24.286	14.626	19739	10	16.375	16.086	19813	25	6.420	18.764	19887	43	1.510	20.695
19592	23	4.902	13.842	19666	8	24.310	14.702	19740	14	17.016	16.947	19814	19	7.209	18.905	19888	18	2.894	20.954
19593	18	5.370	13.382	19667	28	24.716	14.350	19741	39	17.286	16.900	19815	11	7.301	18.739	19889	10	3.554	20.320
19594	15	6.310	13.632	19668	8	24.812	14.466	19742	9	17.514	16.734	19816	10	7.643	18.165	19890*	51	3.656	20.200
19595	12	6.742	13.552	19669	28	24.962	14.826	19743	15	17.941	16.965	19817	22	7.926	18.411	19891	8	3.764	20.878
19596	13	7.608	13.380	19670	8	0.828	15.163	19744	20	18.224	16.570	19818	10	7.981	18.472	19892	28	3.791	20.886
19597	29	7.664	13.066	19671	22	1.134	15.946	19745	19	18.350	16.198	19819	12	9.392	18.100	19893	39	5.217	20.435
19598	36	7.930	13.942	19672	10	1.248	15.388	19746	33	18.501	16.727	19820	8	11.379	18.331	19894	20	5.940	20.450
19599	13	9.516	13.856	19673	8	2.950	15.827	19747	13	18.616	16.208	19821	10	11.752	18.436	19895*	47	6.044	20.023
19600	8	10.000	13.164	19674	8	3.412	15.676	19748	17	18.676	16.306	19822	24	12.376	18.590	19896	8	6.104	20.134
19601	18	10.547	13.006	19675	19	3.824	15.350	19749	25	19.123	16.078	19823	32	12.798	18.720	19897	26	6.534	20.470
19602	20	10.576	13.423	19676	25	3.877	15.788	19750	20	19.478	16.384	19824	22	13.466	18.750	19898	24	7.208	20.052
19603	10	11.482	13.085	19677	9	3.963	15.965	19751	11	19.710	16.596	19825	12	14.927	18.034	19899	13	8.727	20.078
19604	26	11.946	13.860	19678	14	5.408	15.078	19752	10	20.584	16.026	19826	15	15.196	18.478	19900	11	9.534	20.733
19605	19	12.670	13.782	19679	19	5.964	15.314	19753	9	21.275	16.656	19827	13	18.156	18.124	19901	15	10.344	20.736
19606	20	14.024	13.482	19680	9	6.208	15.674	19754	16	21.954	16.490	19828	11	20.300	18.350	19902	25	11.691	20.084
19607	18	14.494	13.162	19681	26	8.184	15.780	19755	19	22.410	16.375	19829	9	20.673	18.252	19903	11	14.424	20.716
19608	21	14.732	13.832	19682	17	8.787	15.702	19756	16	23.642	16.908	19830	8	20.764	18.826	19904	13	15.665	20.400
19609	21	15.394	13.740	19683	29	9.148	15.574	19757	8	24.135	16.702	19831	29	22.420	18.950	19905	23	16.026	20.821
19610	12	15.544	13.071	19684*	52	9.581	15.120	19758	19	25.104	16.885	19832	15	23.510	18.215	19906	8	16.462	20.826
19611	8	15.871	13.297	19685	21	9.716	15.270	19759	19	25.460	16.285	19833	16	23.864	18.402	19907	18	16.549	20.21



19920	12	23.024	20.582	19994	22	19.690	22.714	20068	8	18.726	24.608	20152	13	1.746	0.488	20226	8	24.918	1.285
19921	24	24.026	20.854	19995	32	19.859	22.858	20069	23	18.974	24.550	20153	13	2.015	0.308	20227	8	0.455	2.160
19922*	46	24.081	20.375	19996	20	21.119	22.320	20070	25	19.084	24.338	20154	8	2.786	0.526	20228	8	1.189	2.910
19923	10	24.974	20.736	19997	26	22.423	22.092	20071	24	19.196	24.230	20155	8	3.210	0.348	20229	12	1.254	2.174
19924	15	25.060	20.332	19998	18	24.338	22.786	20072	8	19.354	24.705	20156	8	3.611	0.519	20230	8	1.394	2.746
19925	11	25.482	20.136	19999	11	24.594	22.830	20073	11	20.522	24.744	20157	10	3.760	0.470	20231	12	2.598	2.604
19926	22	0.191	21.896	20000	16	25.136	22.062	20074	13	20.951	24.766	20158	8	3.898	0.992	20232	8	3.530	2.602
19927	8	0.396	21.272	20001	8	25.258	22.636	20075	8	21.078	24.244	20159	22	4.265	0.667	20233	8	3.794	2.085
19928	18	1.444	21.376	20002	11	25.556	22.560	20076*	56	21.105	24.867	20160	11	5.700	0.979	20234*	34	4.466	2.037
19929	13	2.404	21.066	20003	15	0.714	23.286	20077	24	21.852	24.795	20161	8	6.472	0.327	20235	8	5.759	2.098
19930	21	2.554	21.244	20004	11	1.636	23.213	20078	44	23.070	24.096	20162	8	6.624	0.432	20236	12	6.534	2.862
19931	8	2.699	21.950	20005	20	3.552	23.904	20079	16	24.448	24.894	20163	8	7.703	0.721	20237*	29	6.712	2.422
19932	20	3.286	21.738	20006	16	3.733	23.775	20080	11	24.588	24.326	20164	12	8.294	0.274	20238	11	7.491	2.602
19933	24	5.072	21.508	20007	9	3.930	23.460	20081	40	25.235	24.136	20165	14	9.098	0.216	20239	12	8.110	2.473
19934	23	5.869	21.988	20008	15	4.250	23.926	20082	11	25.713	24.315	20166	8	9.675	0.915	20240	9	8.376	2.314
19935	12	7.127	21.114	20009	11	4.268	23.654	20083	18	25.776	24.744	20167	8	9.782	0.251	20241	8	8.559	2.748
19936	8	7.500	21.145	20010	14	4.444	23.307	20084*	73	1.595	25.298	20168*	80	11.001	0.506	20242	8	8.750	2.454
19937	12	7.527	21.894	20011	21	7.337	23.184	20085*	56	2.677	25.302	20169	8	11.281	0.550	20243	27	9.962	2.547
19938	10	7.568	21.750	20012	22	7.453	23.078	20086	40	2.855	25.873	20170	20	12.072	0.158	20244	8	10.000	2.335
19939	21	7.600	21.275	20013	8	7.544	23.289	20087	21	3.304	25.316	20171	8	12.953	0.205	20245	11	12.546	2.648
19940	10	7.868	21.823	20014	8	8.124	23.978	20088	19	5.396	25.060	20172	13	14.380	0.057	20246	16	12.893	2.856
19941	12	8.236	21.168	20015	12	8.189	23.374	20089	16	5.880	25.365	20173	9	14.649	0.353	20247	25	16.372	2.486
19942	10	8.688	21.246	20016	8	8.738	23.291	20090	21	8.088	25.936	20174	37	15.080	0.112	20248	11	16.698	2.759
19943*	45	9.806	21.296	20017	14	9.185	23.573	20091	11	8.166	25.516	20175	24	15.252	0.861	20249	33	17.856	2.486
19944	23	10.320	21.792	20018	12	10.490	23.966	20092	17	9.558	25.723	20176	8	15.502	0.804	20250	8	18.367	2.067
19945	9	10.458	21.464	20019	27	10.808	23.176	20093	22	9.572	25.424	20177	8	16.147	0.898	20251	23	18.670	2.394
19946*	44	11.865	21.220	20020	9	11.286	23.444	20094	11	9.686	25.226	20178	8	16.872	0.202	20252	8	18.894	2.924
19947	24	12.100	21.299	20021	31	12.102	23.047	20095	31	9.827	25.465	20179	17	17.822	0.953	20253	8	19.074	2.196
19948	8	12.576	21.018	20022	21	12.804	23.085	20096	22	9.980	25.374	20180	8	19.203	0.594	20254	21	19.120	2.196
19949	8	13.214	21.148	20023	27	13.877	23.912	20097	12	10.066	25.784	20181	8	19.378	0.494	20255	8	19.188	2.796
19950	17	13.930	21.335	20024	15	13.972	23.218	20098	23	10.400	25.726	20182	8	19.498	0.659	20256	18	20.629	2.181
19951	19	14.956	21.401	20025	18	14.102	23.916	20099	11	10.704	25.496	20183	12	19.999	0.209	20257	14	21.987	2.103
19952	8	17.224	21.936	20026	8	15.197	23.798	20100	14	10.829	25.576	20184	8	20.798	0.653	20258	33	24.019	2.276
19953	11	17.274	21.857	20027	19	15.436	23.056	20101	21	11.719	25.935	20185	18	20.956	0.228	20259	8	24.885	2.421
19954	14	17.510	21.708	20028	9	15.946	23.732	20102	17	12.564	25.604	20186	17	23.018	0.126	20260	8	25.026	2.295
19955	14	18.758	21.282	20029	16	16.014	23.394	20103	25	13.300	25.184	20187	9	24.286	0.088	20261	8	25.254	2.285
19956	9	20.099	21.316	20030	18	16.801	23.670	20104	20	13.324	25.566	20188	20	25.155	0.780	20262	26	25.466	2.386
19957	24	20.189	21.729	20031	28	17.105	23.580	20105	23	14.614	25.930	20189	16	25.238	0.370	20263	50	25.892	2.233
19958	39	20.882	21.336	20032	19	17.303	23.780	20106	22	15.785	25.714	20190	21	3.100	1.830	20264	16	0.478	3.876
19959	27	21.736	21.174	20033	35	18.197	23.632	20107	23	15.855	25.506	20191	14	3.309	1.894	20265	8	0.812	3.490
19960	22	21.863	21.302	20034	11	18.460	23.200	20108	34	17.082	25.742	20192	9	3.326	1.954	20266	8	2.185	3.598
19961	24	22.450	21.684	20035	43	18.478	23.566	20109	20	17.876	25.966	20193	18	3.940	1.946	20267	8	2.256	3.127
19962	21	22.676	21.084	20036	8	19.788	23.634	20110	12	18.598	25.056	20194	8	4.092	1.816	20268	8	2.318	3.566
19963*	46	24.087	21.396	20037*	46	20.718	23.509	20111	21	19.940	25.960	20195	8	6.690	1.786	20269	9	2.410	3.232
19964	22	25.665	21.036	20038	30	21.322	23.382	20112	40	21.411	25.463	20196*	36	6.826	1.816	20270	12	2.517	3.865
19965	10	0.816	22.900	20039	16	22.840	23.153	20113	10	21.768	25.815	20197	8	8.491	1.338	20271	16	2.643	3.236
19966	18	1.353	22.916	20040	30	23.856	23.124	20114	22	22.355	25.655	20198	16	8.702	1.246	20272	9	5.642	3.457
19967	33	3.916	22.796	20041	25	24.328	23.974	20115	11	22.468	25.156	20199	9	8.922	1.320	20273	8	6.101	3.773
19968*	47	5.112	22.523	20042	21	24.600	23.044	20116	18	23.207	25.274	20200	12	9.418	1.683	20274	12	6.125	3.761
19969	10	5.728	22.403	20043	12	24.774	23.610	20117	18	24.179	25.604	20201	8	9.888	1.951	20275	8	6.714	3.054
19970	23	6.057	22.260	20044	12	25.045	23.565	20118	14	24.238	25.714	20202	8	10.598	1.003	20276	8	8.446	3.513
19971	26	7.034	22.412	20045	21	25.152	23.644	20119	18	25.803	25.065	20203*	40	10.792	1.502	20277	17	9.011	3.816
19972	23	7.165	22.950	20046	16	0.195	24.884					20204	8	10.858	1.752	20278	12	10.281	3.419
19973	25	7.471	22.194	20047	25	0.745	24.317					20205	13	11.108	1.037	20279	8	10.507	3.356
19974	12	8.495	22.509	20048	11	0.848	24.593					20206	8	11.120	1.205	20280	8	11.649	3.365
19975	25	8.952	22.623	20049	9	2.726	24.106					20207*	36	11.575	1.936	20281	18	11.748	3.088
19976	11	10.177	22.718	20050	35	3.577	24.385					20208*	37	11.717	1.156	20282	8	12.238	3.827
19977	43	10.675	22.923	20051	11	6.150	24.872					20209	8	12.098	1.029	20283	8	12.269	3.383
19978	8	10.884	22.500	20052	9	6.820	24.183					20210	8	12.230	1.957	20284	8	12.392	3.964
19979	8	12.506	22.550	20053	15	6.912	24.864					20211	8	12.851	1.100	20285	11	12.916	3.957
19980	11	12.596	22.252	20054	12	7.313	24.552					20212*	53	14.021	1.982	20286	11	13.344	3.323
19981	18	13.294	22.066	20055	24	8.396	24.004					20213	8	15.692	1.764	20287	11	14.089	3.802
19982	11	13.415	22.212	20056	10	8.657	24.931					20214	16	15.845	1.756	20288	8	14.720	3.136
19983	15	14.766	22.683	20057	43	8.850	24.970					20215	8	16.515	1.479	20289	9	16.252	3.824
19984	12	14.878	22.588	20058	21														



20300*	13	2.696	4.568	20374	8	21.433	5.426	20448	22	10.592	7.386	20522	8	22.510	8.590	20596	8	1.482	10.357
20301	12	2.711	4.589	20375	31	21.556	5.571	20449	16	10.714	7.860	20523	10	22.555	8.246	20597	8	1.859	10.984
20302*	30	2.870	4.303	20376	22	22.428	5.066	20450	8	10.785	7.716	20524	11	24.049	8.437	20598	15	2.256	10.550
20303	13	2.906	4.794	20377	8	22.616	5.598	20451	8	10.890	7.477	20525	18	24.184	8.089	20599	8	2.930	10.666
20304	23	3.991	4.156	20378	21	23.710	5.150	20452	8	11.029	7.733	20526	15	24.960	8.621	20600	13	4.330	10.046
20305	8	4.480	4.432	20379	17	24.370	5.087	20453	10	11.073	7.428	20527	8	25.102	8.860	20601	10	4.957	10.536
20306	14	5.268	4.499	20380	8	25.663	5.207	20454	8	11.734	7.484	20528	8	25.374	8.438	20602	32	5.453	10.334
20307	8	5.366	4.458	20381	17	25.771	5.142	20455	12	11.974	7.899	20529	11	0.382	9.340	20603	22	5.640	10.184
20308	8	5.816	4.258	20382	8	0.985	6.288	20456	8	12.092	7.504	20530	9	1.340	9.180	20604	8	5.956	10.467
20309	24	5.930	4.006	20383	8	3.143	6.834	20457	10	13.337	7.811	20531	17	1.861	9.220	20605	8	6.164	10.036
20310	13	6.009	4.752	20384	22	4.500	6.221	20458	28	13.494	7.202	20532	10	2.767	9.446	20606	23	6.466	10.961
20311	10	9.200	4.488	20385	10	6.836	6.790	20459	8	13.594	7.700	20533	8	3.118	9.094	20607	8	6.807	10.171
20312	8	9.214	4.358	20386	12	6.958	6.704	20460	15	13.920	7.374	20534	19	3.512	9.455	20608	13	7.300	10.965
20313	11	9.398	4.530	20387*	43	7.584	6.076	20461	10	14.046	7.738	20535	17	3.958	9.788	20609*	63	8.506	10.974
20314	8	9.482	4.624	20388	22	8.025	6.770	20462	8	15.136	7.009	20536	8	4.355	9.156	20610	10	9.345	10.871
20315	12	10.360	4.246	20389	9	8.413	6.330	20463	8	15.464	7.160	20537	10	4.438	9.694	20611	8	9.878	10.103
20316	8	10.772	4.732	20390	16	8.997	6.846	20464	8	16.400	7.466	20538	10	4.971	9.569	20612	8	10.082	10.980
20317	8	10.808	4.057	20391	19	9.696	6.751	20465	8	16.630	7.676	20539	8	5.447	9.494	20613	10	10.218	10.134
20318	9	11.267	4.600	20392	34	9.806	6.666	20466	8	16.848	7.666	20540	14	5.486	9.826	20614	8	10.491	10.076
20319	12	13.230	4.044	20393	10	10.056	6.805	20467	32	17.258	7.083	20541	8	5.728	9.276	20615	8	10.804	10.634
20320	9	14.230	4.796	20394	9	10.696	6.028	20468	8	18.200	7.850	20542	11	5.937	9.986	20616	16	11.600	10.726
20321	8	14.422	4.754	20395	8	10.720	6.626	20469*	44	19.317	7.356	20543	22	6.124	9.920	20617	10	11.794	10.082
20322	8	15.392	4.185	20396	10	10.751	6.061	20470	8	20.296	7.576	20544	8	6.351	9.873	20618	8	11.932	10.767
20323	8	15.402	4.688	20397	12	11.663	6.186	20471	8	23.066	7.144	20545	8	6.700	9.092	20619	8	12.067	10.932
20324	10	15.441	4.487	20398	9	11.778	6.034	20472	16	23.994	7.390	20546	23	6.940	9.452	20620	20	12.170	10.233
20325	13	16.193	4.845	20399	29	12.068	6.479	20473	8	24.024	7.215	20547	12	7.996	9.049	20621	14	12.346	10.855
20326	8	16.222	4.549	20400	12	12.330	6.546	20474	18	25.110	7.592	20548	20	9.022	9.472	20622	15	12.414	10.284
20327	8	18.950	4.533	20401	14	13.011	6.735	20475	8	25.642	7.220	20549	8	9.095	9.156	20623	13	13.069	10.718
20328	10	19.792	4.457	20402	21	14.158	6.014	20476	9	25.990	7.794	20550	11	9.240	9.727	20624	8	13.794	10.787
20329	8	19.939	4.750	20403	8	14.628	6.896	20477	25	1.585	8.866	20551	12	9.348	9.075	20625	8	14.144	10.342
20330	8	22.376	4.274	20404	8	14.808	6.070	20478	9	2.379	8.228	20552	8	9.734	9.022	20626	12	14.232	10.016
20331	8	22.602	4.845	20405	29	15.334	6.908	20479	8	3.909	8.276	20553	8	9.844	9.175	20627	8	14.255	10.158
20332	8	22.622	4.159	20406	10	15.370	6.502	20480	11	4.381	8.112	20554	8	9.859	9.528	20628	8	14.258	10.524
20333	22	22.886	4.470	20407	8	15.701	6.795	20481	20	5.260	8.416	20555*	60	11.635	9.394	20629	23	14.351	10.088
20334	8	23.140	4.623	20408	8	17.560	6.908	20482	11	7.176	8.826	20556	20	11.835	9.690	20630	14	14.594	10.970
20335*	55	24.324	4.650	20409	18	17.764	6.459	20483	10	7.288	8.630	20557	28	11.878	9.254	20631	13	14.758	10.490
20336	8	25.037	4.600	20410	22	17.914	6.686	20484	8	7.678	8.074	20558	8	11.904	9.228	20632	12	14.805	10.433
20337	8	25.488	4.625	20411	8	19.929	6.498	20485	8	7.870	8.216	20559	11	12.014	9.724	20633	13	14.933	10.698
20338	8	25.614	4.404	20412	10	20.591	6.457	20486	11	8.426	8.501	20560	11	12.045	9.209	20634	10	15.218	10.154
20339	12	0.208	5.196	20413	30	20.714	6.956	20487	12	8.504	8.203	20561	8	12.148	9.300	20635	8	15.310	10.147
20340	31	0.312	5.194	20414	10	21.551	6.429	20488	11	9.032	8.036	20562	8	12.656	9.692	20636	8	15.392	10.756
20341	13	1.246	5.568	20415	10	22.036	6.556	20489	8	9.265	8.671	20563	21	13.476	9.976	20637	8	15.536	10.784
20342	11	1.734	5.885	20416	8	22.327	6.933	20490	8	9.720	8.922	20564	16	13.658	9.664	20638	10	16.630	10.438
20343	15	2.802	5.840	20417	14	22.682	6.475	20491	12	9.990	8.878	20565	10	13.774	9.398	20639	36	16.840	10.477
20344	8	3.912	5.701	20418	8	22.774	6.698	20492	18	10.015	8.916	20566*	34	14.030	9.006	20640	8	17.032	10.177
20345	9	4.179	5.768	20419	10	23.180	6.219	20493	9	10.802	8.430	20567	10	14.126	9.864	20641	12	17.498	10.633
20346	21	4.450	5.134	20420	8	23.238	6.889	20494	8	11.783	8.195	20568	10	14.400	9.632	20642	13	17.512	10.515
20347	8	4.475	5.500	20421	14	24.231	6.374	20495	12	12.128	8.264	20569	12	14.678	9.645	20643	8	18.395	10.314
20348	8	5.166	5.840	20422	15	24.345	6.436	20496	12	12.171	8.595	20570	8	14.953	9.193	20644	8	21.121	10.091
20349	8	5.311	5.988	20423	8	24.428	6.092	20497	31	12.272	8.065	20571	13	14.986	9.998	20645	40	21.115	10.324
20350	23	5.815	5.431	20424	9	0.723	7.552	20498	9	12.349	8.688	20572	39	15.090	9.104	20646	37	21.164	10.832
20351	8	7.578	5.324	20425	8	1.035	7.140	20499	12	13.132	8.700	20573	8	15.231	9.084	20647	8	21.246	10.500
20352	16	9.270	5.125	20426	18	1.832	7.521	20500	8	13.180	8.760	20574	23	15.380	9.146	20648	8	21.532	10.447
20353	11	9.346	5.744	20427	8	2.004	7.251	20501	14	13.822	8.696	20575	12	16.001	9.586	20649	8	23.676	10.643
20354	8	9.402	5.530	20428	10	2.246	7.450	20502	8	14.524	8.600	20576	41	16.049	9.852	20650	14	25.387	10.254
20355	8	9.769	5.957	20429	12	2.878	7.412	20503	37	15.076	8.450	20577	8	16.125	9.590	20651	8	1.000	11.694
20356	8	11.343	5.028	20430	14	3.381	7.219	20504	8	15.416	8.398	20578	8	16.186	9.218	20652	8	1.410	11.323
20357	17	11.996	5.916	20431	8	4.023	7.379	20505	8	15.435	8.947	20579	13	17.128	9.876	20653	21	1.804	11.364
20358	9	12.490	5.389	20432	8	4.726	7.026	20506	8	16.278	8.016	20580	8	17.144	9.856	20654	23	1.823	11.900
20359	8	13.053	5.528	20433	35	4.868	7.004	20507	8	16.475	8.800	20581	9	17.300	9.837	20655	8	1.890	11.660
20360	8	13.549	5.654	20434	8	5.536	7.078	20508	8	16.493	8.239	20582	8	17.342	9.826	20656	8	2.356	11.099
20361	8	14.223	5.422	20435	8	5.968	7.340	20509	12	16.499	8.816	20583	11	18.056	9.750	20657	8	4.266	11.422
20362	16	15.123	5.850	20436	15	6.316	7.586	20510	8	16.653	8.264	20584	10	18.400	9.094	20658	8	4.621	11.374
20363*	60	15.157	5.258	20437	8	6.318	7.302	20511	21	16.746	8.902	20585	10	19.646	9.154	2			



20670	18	9.540	11.592	20744	8	12.914	12.692	20818	16	18.070	13.140	20892	8	22.258	14.056	20966	8	10.850	16.512
20671	8	9.546	11.053	20745	14	13.020	12.343	20819	8	19.344	13.340	20893	8	22.266	14.146	20967	8	11.078	16.273
20672	8	9.650	11.246	20746	9	13.550	12.784	20820	8	20.321	13.194	20894	25	22.804	14.110	20968	14	12.592	16.957
20673	23	9.830	11.286	20747	8	13.759	12.470	20821	11	20.704	13.534	20895	8	23.102	14.614	20969	8	12.707	16.770
20674	12	10.252	11.246	20748	16	13.890	12.707	20822	8	20.850	13.568	20896	8	23.130	14.532	20970	15	12.866	16.534
20675	10	11.314	11.254	20749	8	13.897	12.356	20823	13	21.944	13.122	20897	9	23.156	14.713	20971	8	13.627	16.620
20676	15	11.415	11.712	20750	26	14.492	12.212	20824	8	22.030	13.113	20898	8	23.176	14.212	20972	11	14.264	16.378
20677	10	11.739	11.056	20751	12	14.492	12.614	20825	8	22.273	13.097	20899*	58	24.852	14.834	20973	13	14.265	16.982
20678	10	11.874	11.076	20752	8	15.587	12.130	20826	24	22.912	13.394	20900	8	25.886	14.392	20974	8	14.603	16.142
20679	33	11.938	11.140	20753	8	15.916	12.046	20827	9	23.610	13.292	20901	26	0.422	15.892	20975	8	14.682	16.782
20680	10	12.306	11.678	20754	23	16.287	12.966	20828	24	24.308	13.936	20902	8	1.101	15.188	20976	8	14.724	16.636
20681	8	12.498	11.784	20755	23	16.984	12.833	20829	8	24.653	13.302	20903	8	2.098	15.930	20977	8	15.248	16.012
20682	8	12.940	11.640	20756	10	18.038	12.312	20830	37	25.870	13.737	20904	18	2.418	15.068	20978	8	15.262	16.114
20683	8	12.970	11.851	20757	11	19.252	12.114	20831	8	0.068	14.302	20905	10	2.470	15.404	20979	15	15.496	16.483
20684	8	13.220	11.406	20758	10	19.274	12.750	20832	12	0.782	14.564	20906	20	4.556	15.946	20980	8	15.700	16.889
20685	12	13.424	11.725	20759	21	19.502	12.864	20833	20	1.650	14.817	20907	8	4.630	15.374	20981	8	15.797	16.616
20686	8	13.634	11.400	20760	8	19.602	12.964	20834	8	1.738	14.870	20908	31	4.729	15.458	20982	24	16.181	16.920
20687	9	13.714	11.180	20761	17	19.729	12.670	20835	19	2.169	14.594	20909	8	4.750	15.500	20983	8	16.346	16.614
20688	23	14.780	11.551	20762	11	20.182	12.591	20836	8	4.762	14.356	20910	24	5.016	15.546	20984	11	16.495	16.042
20689	18	15.060	11.536	20763	8	20.320	12.548	20837	10	5.926	14.430	20911	35	8.064	15.952	20985	13	16.788	16.224
20690	8	15.595	11.396	20764	8	20.944	12.676	20838	8	6.050	14.130	20912	8	8.089	15.461	20986	8	16.818	16.080
20691	9	15.679	11.551	20765	8	21.641	12.975	20839*	36	6.186	14.044	20913	30	8.885	15.930	20987	8	16.912	16.625
20692	13	15.728	11.434	20766	8	21.768	12.187	20840	8	6.714	14.680	20914	20	9.078	15.930	20988	22	17.007	16.531
20693	8	16.062	11.463	20767	10	23.169	12.042	20841	25	7.058	14.495	20915	8	9.853	15.380	20989	8	17.184	16.416
20694	25	16.639	11.196	20768	9	23.384	12.098	20842	11	7.170	14.971	20916	10	10.170	15.836	20990	8	18.600	16.369
20695	8	16.970	11.710	20769	8	23.460	12.155	20843	13	7.626	14.775	20917	28	10.505	15.569	20991	8	19.041	16.340
20696	10	17.386	11.660	20770	8	23.989	12.260	20844	13	7.973	14.653	20918	16	11.386	15.052	20992	11	19.654	16.763
20697	8	17.435	11.409	20771	8	24.805	12.247	20845*	22	8.016	14.972	20919	8	12.084	15.849	20993	8	19.708	16.615
20698	17	17.582	11.328	20772	8	25.429	12.756	20846	10	8.036	14.350	20920	8	12.086	15.985	20994	30	22.416	16.016
20699	8	18.066	11.970	20773	9	1.606	13.676	20847	20	8.194	14.016	20921	21	13.721	15.755	20995	8	22.838	16.316
20700	8	18.400	11.200	20774	9	1.627	13.559	20848	11	8.282	14.289	20922	8	13.942	15.024	20996	8	24.244	16.328
20701	19	18.590	11.800	20775	8	1.687	13.864	20849	11	8.595	14.332	20923	8	14.178	15.085	20997	12	25.243	16.128
20702*	40	18.803	11.896	20776	8	1.865	13.940	20850	20	8.637	14.734	20924	19	15.196	15.740	20998	13	0.226	17.824
20703	18	18.892	11.154	20777	8	2.631	13.358	20851	8	9.081	14.020	20925	8	15.510	15.820	20999	8	1.110	17.160
20704	8	19.236	11.276	20778	16	3.004	13.052	20852	8	9.375	14.332	20926	8	15.682	15.861	21000	8	1.930	17.865
20705	12	19.300	11.246	20779	8	3.246	13.990	20853	8	9.548	14.404	20927	8	17.296	15.152	21001	8	2.468	17.472
20706	8	19.850	11.032	20780	8	5.262	13.260	20854	8	9.732	14.804	20928	8	17.308	15.826	21002	11	2.576	17.126
20707	8	19.936	11.472	20781	10	5.687	13.856	20855	8	10.084	14.288	20929	13	17.378	15.816	21003	8	3.196	17.634
20708	18	20.881	11.932	20782	16	6.678	13.346	20856	9	10.158	14.407	20930	8	17.936	15.308	21004	8	3.438	17.244
20709	8	21.838	11.502	20783	10	6.780	13.476	20857	8	10.230	14.750	20931	8	18.174	15.042	21005	14	3.770	17.204
20710	8	22.838	11.650	20784	20	7.326	13.482	20858	10	10.679	14.296	20932	8	18.671	15.490	21006	11	3.861	17.398
20711	8	23.281	11.994	20785	8	7.950	13.191	20859	9	10.824	14.557	20933	11	19.660	15.058	21007	8	4.096	17.716
20712	8	23.808	11.743	20786	9	8.008	13.958	20860	8	10.925	14.678	20934	36	20.776	15.364	21008	20	4.544	17.107
20713	8	24.778	11.244	20787	20	8.864	13.073	20861	17	11.166	14.220	20935	10	21.053	15.438	21009	8	5.557	17.774
20714	8	0.048	12.915	20788	8	8.912	13.824	20862	9	11.412	14.358	20936*	44	21.073	15.684	21010	10	6.878	17.498
20715	26	0.530	12.450	20789	40	9.292	13.167	20863	8	12.064	14.748	20937	23	21.930	15.536	21011	20	6.937	17.918
20716	8	0.544	12.816	20790*	33	9.398	13.480	20864	12	12.862	14.525	20938*	33	23.983	15.697	21012	20	6.964	17.212
20717	9	0.738	12.358	20791	8	9.507	13.712	20865	8	13.062	14.646	20939	10	24.040	15.579	21013	8	7.178	17.144
20718	12	1.205	12.466	20792	8	9.578	13.436	20866	26	13.264	14.244	20940	15	24.219	15.034	21014	8	7.723	17.960
20719	9	1.768	12.598	20793	8	9.746	13.072	20867	12	13.886	14.536	20941	14	25.731	15.126	21015	20	8.084	17.928
20720	8	2.715	12.658	20794	35	9.978	13.997	20868	19	13.940	14.260	20942	14	25.878	15.150	21016	8	8.884	17.320
20721*	57	3.408	12.040	20795	13	11.106	13.486	20869	35	14.191	14.378	20943	20	0.286	16.002	21017	8	9.326	17.787
20722	8	3.524	12.480	20796	12	11.132	13.478	20870	8	14.257	14.343	20944	8	1.502	16.958	21018	15	10.335	17.797
20723	8	3.658	12.234	20797	10	11.280	13.594	20871	8	14.505	14.774	20945	8	2.433	16.068	21019	24	10.724	17.854
20724	9	4.122	12.015	20798	8	11.539	13.415	20872	20	14.678	14.128	20946	12	2.926	16.525	21020	11	11.152	17.987
20725	13	4.279	12.073	20799	14	12.020	13.937	20873	8	15.016	14.875	20947	8	3.652	16.991	21021	8	11.328	17.011
20726	8	4.586	12.583	20800	23	12.782	13.578	20874	10	15.592	14.134	20948	8	4.160	16.076	21022	8	12.148	17.082
20727	22	5.118	12.540	20801	8	13.017	13.148	20875	13	15.726	14.324	20949	10	4.314	16.360	21023	12	12.590	17.640
20728	8	6.424	12.316	20802	36	13.075	13.585	20876	8	15.928	14.497	20950	8	4.528	16.956	21024	13	14.530	17.833
20729	10	6.562	12.634	20803*	46	13.138	13.595	20877*	30	16.328	14.074	20951	11	6.022	16.212	21025	22	14.982	17.592
20730	8	6.976	12.452	20804	25	14.154	13.964	20878	29	16.344	14.064	20952	11	6.196	16.014	21026	8	15.093	17.703
20731	11	7.206	12.632	20805	8	14.506	13.239	20879	8	16.799	14.025	20953	11	6.232	16.520	21027	9	15.941	17.523
20732	8	7.369	12.322	20806	18	14.672	13.590	20880	22	17.156									



21040	8	22.030	17.682	21114	8	4.500	19.424	21188	9	23.700	20.917	21262	8	12.674	22.928	21336	8	20.040	23.924
21041	27	22.285	17.636	21115	9	4.662	19.951	21189	8	24.236	20.016	21263	8	13.780	22.760	21337	14	20.382	23.810
21042	8	22.646	17.660	21116	11	4.729	19.022	21190	8	24.258	20.450	21264	10	14.103	22.384	21338	18	20.589	23.111
21043	25	24.582	17.384	21117	9	5.546	19.823	21191	9	0.178	21.338	21265	8	14.105	22.225	21339	13	20.640	23.900
21044	16	25.977	17.786	21118	9	5.926	19.305	21192	14	1.525	21.100	21266	12	14.528	22.674	21340	16	20.675	23.840
21045	10	0.992	18.466	21119	12	6.026	19.488	21193*	38	1.586	21.640	21267	15	14.921	22.980	21341	8	22.156	23.722
21046	10	0.992	18.096	21120	8	6.463	19.526	21194	8	1.920	21.417	21268*	60	15.188	22.344	21342	15	22.822	23.195
21047	8	1.349	18.648	21121	8	6.743	19.984	21195	13	3.170	21.271	21269	11	15.422	22.281	21343	8	24.407	23.474
21048	11	1.770	18.070	21122	8	7.670	19.231	21196	24	4.629	21.182	21270	13	16.003	22.695	21344	8	0.377	24.992
21049	8	2.599	18.213	21123	14	9.380	19.223	21197	10	4.766	21.108	21271	8	16.567	22.300	21345	23	0.594	24.348
21050	11	2.746	18.922	21124	22	9.606	19.514	21198	24	4.920	21.714	21272	9	17.300	22.927	21346	19	1.851	24.217
21051	8	2.978	18.268	21125	10	9.975	19.016	21199	21	5.254	21.042	21273	23	17.438	22.884	21347	8	1.880	24.264
21052	8	3.894	18.548	21126	8	10.796	19.752	21200	10	6.255	21.580	21274	21	18.594	22.320	21348	25	2.758	24.374
21053	16	4.571	18.328	21127	11	10.822	19.765	21201	14	6.889	21.983	21275	13	18.904	22.848	21349	8	3.235	24.548
21054	11	5.362	18.976	21128	8	10.956	19.675	21202	8	7.235	21.225	21276	8	19.332	22.298	21350	8	3.305	24.981
21055	12	5.521	18.155	21129	11	11.142	19.690	21203	8	7.400	21.066	21277	12	19.348	22.570	21351	9	4.079	24.537
21056	8	5.936	18.664	21130	10	11.568	19.862	21204	8	8.628	21.774	21278	8	19.445	22.634	21352	23	4.264	24.426
21057	8	6.526	18.376	21131	8	11.720	19.550	21205	14	9.248	21.700	21279	9	19.695	22.261	21353	10	4.882	24.480
21058	25	6.680	18.300	21132	8	11.914	19.236	21206	16	9.322	21.431	21280	8	20.024	22.286	21354	8	5.638	24.066
21059	11	7.726	18.186	21133	9	12.728	19.475	21207	13	10.382	21.304	21281	9	20.229	22.768	21355*	42	6.352	24.530
21060	10	8.000	18.923	21134	8	13.080	19.954	21208	8	10.720	21.142	21282	40	21.503	22.770	21356	11	6.402	24.097
21061	22	8.105	18.098	21135	8	13.298	19.912	21209*	56	10.852	21.359	21283	8	22.325	22.354	21357	20	7.466	24.892
21062*	40	8.274	18.439	21136	22	14.342	19.708	21210	8	11.316	21.937	21284	17	22.610	22.110	21358	9	7.622	24.965
21063	8	8.412	18.080	21137	18	14.390	19.073	21211	9	11.927	21.458	21285	8	23.694	22.362	21359	12	8.172	24.635
21064	17	8.514	18.632	21138	8	14.508	19.582	21212	35	12.259	21.726	21286	32	24.248	22.926	21360	20	8.660	24.300
21065	8	8.678	18.680	21139	19	14.724	19.976	21213	32	12.608	21.278	21287*	34	24.943	22.142	21361	10	8.775	24.514
21066	9	8.684	18.570	21140	17	14.782	19.266	21214	12	12.655	21.968	21288	25	25.312	22.922	21362	13	8.926	24.244
21067	8	8.814	18.892	21141	8	15.070	19.979	21215	37	13.461	21.044	21289	10	25.521	22.324	21363	41	9.550	24.993
21068	8	8.900	18.842	21142	13	16.684	19.306	21216	9	14.585	21.770	21290	8	0.357	23.406	21364	38	9.630	24.178
21069	8	9.244	18.442	21143	11	16.753	19.464	21217	8	14.922	21.140	21291	20	1.370	23.370	21365	10	10.087	24.179
21070	8	10.300	18.765	21144	14	16.820	19.362	21218	23	15.764	21.232	21292	11	1.852	23.026	21366	8	10.829	24.947
21071	8	10.336	18.226	21145*	42	17.772	19.999	21219	12	15.993	21.052	21293	8	2.105	23.070	21367	8	11.741	24.122
21072	8	10.902	18.804	21146	8	17.854	19.522	21220	13	16.170	21.694	21294	12	2.114	23.285	21368	8	11.780	24.212
21073	15	11.220	18.640	21147	28	18.055	19.028	21221	8	16.193	21.922	21295	8	2.295	23.851	21369	14	11.960	24.196
21074	8	11.401	18.356	21148	28	18.943	19.384	21222	8	16.432	21.638	21296	13	2.674	23.884	21370	8	12.062	24.283
21075	8	12.215	18.048	21149	9	19.260	19.976	21223	20	17.332	21.004	21297*	34	3.613	23.633	21371	36	12.464	24.286
21076	11	12.428	18.201	21150	8	20.578	19.727	21224	10	17.850	21.134	21298	36	4.927	23.154	21372	13	12.468	24.654
21077	8	12.474	18.242	21151	8	21.300	19.244	21225	9	18.000	21.304	21299	8	5.422	23.552	21373	9	12.663	24.840
21078	12	13.186	18.596	21152	15	0.229	20.077	21226	11	18.930	21.031	21300	8	5.645	23.916	21374	8	13.485	24.976
21079*	52	13.512	18.339	21153	9	0.986	20.236	21227	20	20.254	21.250	21301	8	5.950	23.633	21375	9	14.550	24.901
21080	8	14.145	18.769	21154*	39	1.573	20.622	21228	8	20.261	21.040	21302	10	6.600	23.170	21376	26	14.960	24.616
21081*	35	14.300	18.706	21155	8	2.554	20.573	21229	28	20.726	21.120	21303	8	6.960	23.656	21377	8	15.126	24.066
21082	23	14.777	18.512	21156	9	2.972	20.371	21230	8	20.729	21.486	21304	10	7.326	23.852	21378*	63	15.233	24.574
21083	10	15.215	18.240	21157	31	3.502	20.481	21231*	19	21.820	21.821	21305	12	8.379	23.784	21379	9	15.475	24.440
21084	12	15.310	18.186	21158	12	3.998	20.918	21232	23	21.868	21.912	21306	12	8.802	23.512	21380	8	15.505	24.175
21085	8	15.574	18.676	21159	9	4.926	20.054	21233	13	22.788	21.391	21307	8	9.070	23.069	21381	8	15.902	24.248
21086	11	16.026	18.640	21160	12	7.368	20.411	21234	8	23.911	21.456	21308	12	10.299	23.498	21382	13	16.406	24.481
21087	8	16.254	18.118	21161	14	8.311	20.913	21235	8	24.454	21.288	21309	17	11.095	23.269	21383	8	17.652	24.804
21088	14	17.326	18.285	21162	11	8.550	20.596	21236	26	24.699	21.506	21310	9	11.650	23.912	21384	44	18.915	24.702
21089*	34	17.401	18.058	21163	27	8.612	20.646	21237	8	25.160	21.592	21311	8	11.810	23.634	21385	8	21.688	24.547
21090	12	17.745	18.306	21164	8	8.785	20.024	21238	8	25.905	21.643	21312	20	12.020	23.162	21386	8	25.856	24.066
21091	10	20.414	18.352	21165	8	9.472	20.838	21239	8	1.148	22.398	21313	12	12.088	23.850	21387	8	0.742	25.516
21092	33	20.600	18.176	21166	8	10.559	20.925	21240	10	2.644	22.302	21314	47	12.730	23.857	21388	10	1.705	25.851
21093	8	21.730	18.920	21167	25	10.982	20.342	21241	8	2.775	22.870	21315	8	13.214	23.955	21389	8	1.774	25.962
21094	22	21.858	18.612	21168	8	11.210	20.314	21242	8	4.393	22.330	21316	13	13.554	23.544	21390	9	1.977	25.130
21095	8	22.311	18.866	21169	8	11.527	20.628	21243	14	5.202	22.880	21317	8	13.646	23.935	21391	11	3.337	25.296
21096	10	22.386	18.366	21170	8	11.570	20.546	21244	8	5.513	22.562	21318	12	14.256	23.924	21392	8	4.921	25.933
21097	10	22.646	18.208	21171	20	12.030	20.184	21245	12	6.727	22.088	21319	8	14.486	23.023	21393	8	5.193	25.820
21098	8	23.205	18.241	21172*	64	12.260	20.366	21246	12	7.091	22.778	21320	11	14.920	23.498	21394	22	5.460	25.654
21099	8	23.716	18.054	21173	18	12.664	20.560	21247	12	7.684	22.166	21321	8	15.217	23.876	21395	14	6.153	25.090
21100	24	24.591	18.403	21174	8	12.704	20.608	21248	8	8.172	22.670	21322	8	15.274	23.534	21396	8	6.201	25.525
21101	19	0.358	19.405	21175	8	13.518	20.384	21249	8	8.331	22.586	21323	8	15.279	23.254	21397	8	6.934	25.154
21102	22	2.210	19.352	21176	19	14.143	20.174	21250	8	9.098	2								



21410	19	10°948	25°568	21480	9	23°859	0°476	21554	20	3°444	3°092	21628	18	21°534	4°072	21702	11	11°813	6°042
21411	12	11°165	25°586	21481	16	23°877	0°224	21555	21	4°214	3°460	21629	32	21°765	4°968	21703	13	11°988	6°559
21412	8	11°700	25°454	21482	27	0°134	1°589	21556	15	5°612	3°404	21630	20	21°910	4°426	21704	13	13°618	6°614
21413	31	11°802	25°918	21483	42	1°373	1°980	21557	21	5°670	3°944	21631*	33	22°755	4°238	21705	15	14°336	6°517
21414	8	12°692	25°870	21484*	47	1°685	1°094	21558	36	7°685	3°479	21632*	33	22°905	4°491	21706	14	15°042	6°606
21415	16	12°907	25°857	21485	33	2°164	1°104	21559	10	7°986	3°848	21633	21	23°186	4°128	21707	15	15°826	6°594
21416	23	13°857	25°112	21486	13	2°386	1°995	21560	16	8°096	3°167	21634	23	23°442	4°834	21708	9	16°064	6°254
21417	12	14°618	25°891	21487	24	2°612	1°978	21561	23	8°433	3°155	21635	24	0°554	5°931	21709	27	16°481	6°326
21418	10	15°193	25°513	21488*	48	3°248	1°925	21562	20	8°613	3°037	21636	12	0°974	5°197	21710	11	17°875	6°706
21419	21	16°284	25°822	21489	14	4°396	1°405	21563	10	9°750	3°569	21637	13	1°804	5°804	21711	15	19°071	6°868
21420	8	17°384	25°210	21490	10	5°481	1°058	21564	12	10°214	3°133	21638	12	2°709	5°550	21712	17	20°044	6°861
21421	14	17°524	25°532	21491*	60	8°548	1°115	21565	15	11°260	3°722	21639	19	3°816	5°682	21713	38	20°538	6°095
21422	20	17°584	25°388	21492	38	9°975	1°616	21566	19	11°335	3°726	21640	12	4°278	5°210	21714	15	21°366	6°135
21423	33	20°114	25°428	21493	14	11°039	1°371	21567	15	11°359	3°246	21641	11	5°254	5°744	21715	14	21°383	6°494
21424	9	22°569	25°287	21494	13	11°144	1°746	21568	16	13°106	3°635	21642	13	7°350	5°762	21716	22	21°747	6°446
21425	29	22°833	25°342	21495	11	11°525	1°444	21569	17	14°258	3°522	21643	30	7°571	5°038	21717	14	23°076	6°555
21426	8	23°255	25°628	21496	17	12°601	1°677	21570	38	15°936	3°346	21644	15	7°955	5°135	21718	15	23°734	6°201
21427	12	23°742	25°390	21497	18	12°654	1°116	21571	14	16°136	3°644	21645	16	9°256	5°504	21719*	38	24°416	6°808
21428	8	24°942	25°302	21498	20	12°826	1°734	21572	17	16°188	3°375	21646	14	9°860	5°544	21720	10	25°207	6°996
R.A. 7 <sup>h</sup> 48 <sup>m</sup> Plate 437; 1915 Jan. 11. Provisional Constants. A B C -0.1752 +0.0181 -0.101 D E F -0.00149 -0.1773 -1.228 Mag. = 16.6 - 1.09√d				21499	8	13°186	1°585	21573	13	16°406	3°284	21647	16	10°086	5°549	21721	15	25°486	6°862
				21500	16	13°394	1°815	21574	36	17°296	3°346	21648	15	10°992	5°786	21722	14	1°374	7°100
				21501	9	15°036	1°576	21575	37	17°824	3°856	21649	22	11°406	5°454	21723	22	1°570	7°794
				21502	16	16°274	1°646	21576	14	18°724	3°264	21650	13	11°552	5°192	21724	11	1°795	7°716
				21503	17	16°535	1°634	21577	20	19°830	3°546	21651*	44	12°457	5°865	21725	24	2°495	7°292
				21504	28	16°595	1°235	21578	26	19°996	3°364	21652	8	12°627	5°843	21726	19	3°379	7°486
				21505	9	17°656	1°622	21579	10	20°306	3°852	21653	24	13°402	5°982	21727	22	3°408	7°313
				21506	28	17°740	1°065	21580	40	20°334	3°793	21654	24	13°459	5°602	21728	23	5°343	7°976
				21507	7	19°756	1°724	21581	27	22°614	3°930	21655	19	13°724	5°300	21729	20	5°578	7°572
				21508	36	20°904	1°794	21582	22	23°607	3°178	21656	11	15°081	5°746	21730	12	6°383	7°702
				21509	10	21°557	1°584	21583*	72	24°455	3°965	21657	11	15°391	5°950	21731	14	7°070	7°177
				21510	15	22°292	1°858	21584	30	0°254	4°186	21658	20	15°455	5°543	21732	33	10°050	7°576
				21511	20	24°868	1°980	21585	14	0°508	4°336	21659	19	16°556	5°385	21733	8	10°818	7°166
				21512	28	24°908	1°204	21586	24	1°080	4°858	21660	24	17°236	5°908	21734*	35	11°006	7°141
				21513	11	24°945	1°726	21587*	58	1°684	4°357	21661	18	18°958	5°874	21735	10	13°298	7°635
				21514	11	25°344	1°436	21588	31	1°742	4°793	21662	8	19°028	5°722	21736	8	14°434	7°971
				21515	11	0°936	2°627	21589	15	2°407	4°304	21663	40	19°494	5°446	21737	22	14°456	7°398
				21516	22	2°244	2°126	21590	16	2°858	4°324	21664	16	20°651	5°915	21738	15	14°694	7°384
				21517	38	2°824	2°082	21591	14	2°985	4°106	21665	30	21°500	5°184	21739	17	14°729	7°829
				21518	15	3°724	2°655	21592	14	3°035	4°902	21666	16	21°856	5°196	21740*	28	14°874	7°162
				21519	35	6°194	2°225	21593	22	3°144	4°840	21667	10	22°058	5°071	21741	19	14°966	7°430
				21520	12	6°842	2°604	21594	17	4°004	4°995	21668	23	24°176	5°712	21742*	46	15°092	7°493
				21521	15	6°846	2°242	21595	24	4°916	4°126	21669*	50	24°385	5°112	21743	9	15°151	7°414
				21522	34	9°456	2°006	21596	16	5°472	4°894	21670	21	24°452	5°692	21744	21	15°216	7°464
				21523	13	10°064	2°096	21597	14	5°606	4°724	21671	38	25°394	5°668	21745*	56	16°044	7°834
				21524	17	10°423	2°821	21598	17	6°337	4°631	21672	18	0°058	6°194	21746	10	18°358	7°259
				21525	15	12°598	2°442	21599	30	7°984	4°742	21673	10	0°398	6°982	21747	14	18°695	7°955
				21526	17	12°674	2°865	21600	13	8°136	4°422	21674	10	0°447	6°856	21748	7	18°964	7°105
				21527	8	12°744	2°165	21601*	44	9°686	4°986	21675	8	1°408	6°926	21749	16	19°354	7°214
				21528	13	13°168	2°498	21602	13	9°694	4°925	21676	25	1°611	6°082	21750	12	19°395	7°203
				21529	35	13°317	2°942	21603	14	9°994	4°911	21677	24	1°724	6°144	21751	20	19°744	7°524
				21530	13	13°526	2°080	21604	12	10°132	4°298	21678	15	1°785	6°042	21752	19	20°076	7°036
				21531	11	13°622	2°708	21605	15	10°294	4°344	21679	13	3°026	6°922	21753	15	21°086	7°308
				21532	11	13°747	2°778	21606	13	11°550	4°235	21680	22	3°530	6°897	21754	25	22°264	7°156
				21533	9	14°154	2°305	21607	11	11°722	4°056	21681	9	3°832	6°375	21755	21	22°915	7°036
				21534	16	14°495	2°254	21608	22	12°461	4°922	21682	16	4°106	6°088	21756	18	23°070	7°622
				21535	14	15°133	2°714	21609	18	12°516	4°752	21683	13	4°426	6°374	21757	16	24°132	7°728
				21536	9	15°704	2°276	21610	14	13°060	4°006	21684	38	5°414	6°318	21758	18	24°136	7°966
				21537	15	17°518	2°089	21611	16	13°998	4°350	21685	10	5°649	6°959	21759	17	24°274	7°736
				21538	36	17°636	2°074	21612	15	14°293	4°636	21686	14	5°792	6°476	21760	22	24°526	7°115
				21539	15	17°755	2°418	21613	11	14°525	4°195	21687	29	6°044	6°346	21761	11	25°485	7°813
				21540	12	18°514	2°294	21614	25	14°546	4°376	21688	14	6°395	6°062	21762	35	1°254	8°883
				21541	8	19°524	2°387	21615	16	14°854	4°892	21689	36	6°706	6°744	21763	23	1°436	8°146
				21542	14	19°640	2°904	21616	14	15°462	4°430	21690	13	6°891	6°024	21764	20	2°350	8°324
				21543	21	20°304	2°401	21617	17	15°548	4°575	21691	16	6°950	6°652	21765	15	2°764	



21776	8	6.363	8.066	21850	10	21.450	9.316	21924	8	5.682	11.499	21998	11	25.285	12.924	22072	17	12.766	14.749
21777	14	6.806	8.774	21851	28	21.996	9.347	21925	16	5.778	11.148	21999	38	0.224	13.828	22073	12	12.896	14.838
21778	10	6.854	8.356	21852	7	22.128	9.466	21926	25	6.024	11.358	22000	31	0.325	13.109	22074	11	13.074	14.115
21779*	40	7.690	8.088	21853	21	22.439	9.933	21927	8	6.732	11.163	22001	12	0.600	13.927	22075	12	13.276	14.029
21780	17	7.727	8.531	21854	12	22.740	9.659	21928	12	7.426	11.948	22002	29	1.726	13.645	22076	42	13.722	14.535
21781	13	8.135	8.572	21855	15	22.866	9.865	21929	8	8.468	11.369	22003	12	2.070	13.007	22077	15	13.820	14.222
21782	10	8.198	8.508	21856*	36	23.275	9.363	21930*	42	8.554	11.244	22004*	38	3.286	13.435	22078	34	13.996	14.625
21783	20	8.358	8.885	21857	20	25.522	9.456	21931	13	9.292	11.855	22005	32	3.483	13.330	22079	11	14.054	14.222
21784	15	9.324	8.345	21858	16	1.076	10.350	21932	14	9.850	11.741	22006	10	3.744	13.059	22080	12	14.400	14.606
21785	8	10.818	8.104	21859	10	2.014	10.784	21933	16	11.257	11.350	22007	36	3.994	13.617	22081	21	14.856	14.720
21786	15	11.082	8.075	21860	14	2.916	10.839	21934	16	11.415	11.766	22008	38	5.770	13.804	22082	17	14.856	14.480
21787	9	11.262	8.433	21861	38	3.684	10.912	21935	18	11.638	11.118	22009	20	6.127	13.270	22083	12	14.979	14.602
21788	31	11.664	8.165	21862	20	5.009	10.394	21936	17	12.318	11.168	22010	9	6.795	13.430	22084	8	15.191	14.026
21789	12	11.998	8.086	21863	15	5.396	10.700	21937	13	12.365	11.225	22011	8	8.824	13.924	22085	13	15.228	14.240
21790	9	12.985	8.283	21864	8	6.024	10.606	21938	8	12.788	11.877	22012	10	7.098	13.724	22086	15	15.896	14.606
21791	15	13.608	8.906	21865	11	6.314	10.664	21939	15	12.948	11.454	22013	12	8.138	13.275	22087	8	16.292	14.615
21792	16	14.996	8.054	21866	12	7.055	10.212	21940	32	13.456	11.624	22014	26	8.357	13.882	22088	15	16.988	14.884
21793	12	15.410	8.984	21867	35	7.157	10.426	21941	12	14.470	11.801	22015	10	8.770	13.344	22089	11	17.798	14.548
21794	18	15.750	8.276	21868	11	7.462	10.362	21942	38	14.554	11.632	22016	12	8.785	13.094	22090	13	18.460	14.178
21795	8	16.490	8.934	21869	13	9.086	10.814	21943	48	14.694	11.586	22017	16	8.966	13.248	22091	15	18.570	14.575
21796	15	16.896	8.898	21870	26	9.277	10.382	21944	17	15.682	11.549	22018	14	9.121	13.261	22092	10	19.410	14.741
21797	30	17.432	8.065	21871	20	9.363	10.552	21945	16	16.888	11.733	22019	20	9.190	13.479	22093	16	19.464	14.728
21798	15	17.544	8.532	21872	31	10.418	10.835	21946	32	17.333	11.196	22020	9	9.192	13.018	22094	13	19.554	14.698
21799	11	18.992	8.683	21873	15	10.679	10.809	21947	10	18.450	11.978	22021	20	9.615	13.004	22095	21	19.684	14.122
21800	16	19.158	8.568	21874	14	10.984	10.192	21948	13	18.542	11.580	22022	15	10.200	13.813	22096	10	20.144	14.125
21801	14	19.340	8.280	21875	9	11.943	10.441	21949	9	18.864	11.884	22023	8	10.477	13.144	22097	9	20.200	14.156
21802	15	19.934	8.142	21876	14	11.966	10.847	21950	38	19.110	11.776	22024	8	10.882	13.303	22098	26	20.624	14.110
21803	11	20.026	8.447	21877	10	11.995	10.164	21951	17	19.764	11.337	22025	11	10.922	13.902	22099	10	20.643	14.348
21804	25	21.515	8.846	21878	24	12.210	10.562	21952	16	20.358	11.820	22026	13	10.966	13.162	22100	8	20.798	14.827
21805	15	21.596	8.745	21879	7	12.428	10.588	21953	12	20.604	11.570	22027	9	11.948	13.699	22101	15	21.384	14.680
21806	15	22.026	8.484	21880*	42	13.147	10.670	21954	22	21.523	11.482	22028	10	12.242	13.059	22102	29	22.588	14.038
21807	13	22.130	8.785	21881	18	13.384	10.943	21955	18	22.440	11.566	22029	16	14.202	13.970	22103	10	22.784	14.818
21808	16	22.162	8.542	21882	31	13.582	10.291	21956	13	23.232	11.596	22030	27	14.394	13.987	22104	15	22.947	14.225
21809	10	22.264	8.633	21883	15	13.737	10.314	21957	14	23.864	11.044	22031	14	14.951	13.635	22105	21	25.146	14.773
21810	15	22.357	8.996	21884	9	13.964	10.288	21958	16	24.476	11.480	22032	17	15.393	13.888	22106	14	25.207	14.630
21811	14	22.556	8.936	21885	10	13.974	10.955	21959	23	24.577	11.360	22033	20	15.434	13.950	22107	36	25.844	14.362
21812	8	25.684	8.613	21886	15	14.030	10.944	21960	34	25.626	11.546	22034	17	15.914	13.536	22108	10	0.087	15.558
21813	16	25.964	8.466	21887	11	14.751	10.944	21961	17	25.702	11.058	22035	13	16.082	13.956	22109*	34	1.408	15.407
21814	23	0.746	9.186	21888	13	15.548	10.290	21962	11	2.743	12.424	22036	20	16.179	13.084	22110	16	1.468	15.292
21815	13	1.455	9.456	21889	14	15.643	10.893	21963	9	2.842	12.456	22037	9	16.564	13.680	22111	17	2.676	15.831
21816	18	2.114	9.282	21890	21	15.828	10.592	21964	11	3.282	12.746	22038	9	17.491	13.005	22112	11	3.587	15.363
21817	20	2.756	9.808	21891	12	16.028	10.566	21965	10	3.386	12.909	22039	20	17.496	13.068	22113	38	4.161	15.292
21818	20	2.788	9.956	21892	16	18.138	10.904	21966*	88	4.805	12.354	22040	8	18.157	13.420	22114	20	4.212	15.328
21819	10	2.934	9.198	21893	17	18.809	10.267	21967	21	5.124	12.734	22041	28	19.182	13.604	22115	8	4.230	15.026
21820	33	3.430	9.736	21894	9	18.864	10.406	21968	10	6.899	12.412	22042	21	20.108	13.172	22116	23	4.285	15.375
21821	19	3.684	9.199	21895	19	19.560	10.777	21969	11	7.894	12.032	22043	18	21.556	13.484	22117	14	4.478	15.255
21822	14	4.614	9.184	21896	17	20.158	10.780	21970	10	8.324	12.850	22044	15	23.200	13.800	22118	10	5.528	15.652
21823	16	7.204	9.016	21897*	44	20.454	10.392	21971	26	9.256	12.205	22045	9	24.625	13.722	22119	11	5.591	15.723
21824	8	7.414	9.057	21898	10	20.672	10.963	21972	15	9.288	12.220	22046	15	24.892	13.042	22120	21	5.607	15.494
21825	10	7.570	9.498	21899	13	20.770	10.568	21973	8	11.028	12.366	22047	24	1.644	14.744	22121	26	5.657	15.680
21826	26	7.826	9.090	21900	20	21.676	10.987	21974	13	11.786	12.594	22048	10	1.778	14.817	22122	13	5.727	15.155
21827	9	8.294	9.224	21901	16	21.866	10.539	21975	13	13.766	12.782	22049*	56	2.273	14.541	22123	24	6.628	15.013
21828	11	8.461	9.162	21902	16	22.674	10.038	21976	14	14.680	12.526	22050	22	3.160	14.825	22124	13	6.960	15.420
21829	16	9.368	9.338	21903	15	25.206	10.047	21977	14	15.066	12.454	22051	10	3.174	14.208	22125	38	8.418	15.733
21830	13	9.772	9.943	21904	14	25.817	10.136	21978	18	15.184	12.125	22052	19	3.306	14.852	22126	15	8.656	15.134
21831*	51	9.824	9.916	21905	16	0.245	11.366	21979	32	15.650	12.376	22053	11	3.311	14.091	22127	10	8.908	15.622
21832	17	9.970	9.144	21906	12	0.580	11.756	21980*	29	15.679	12.223	22054	15	4.569	14.650	22128	23	8.926	15.046
21833	11	10.250	9.772	21907	14	0.690	11.707	21981	11	16.069	12.754	22055	11	4.569	14.338	22129	19	10.590	15.062
21834	19	11.042	9.744	21908	13	0.791	11.811	21982	20	16.268	12.608	22056	31	5.694	14.070	22130	15	11.598	15.664
21835	28	11.322	9.776	21909	9	0.870	11.867	21983	11	16.416	12.429	22057	12	6.534	14.342	22131	14	11.727	15.914
21836	23	12.586	9.027	21910	11	1.214	11.453	21984	22	16.564	12.776	22058	28	6.866	14.028	22132	15	12.683	15.363
21837	9	12.636	9.980	21911	18	1.400	11.972	21985	8	17.486	12.808	22059	15	6.974	14.395	22133	16	12.842	15.736
21838	21	12.744	9.376	21912	15	2.216													



22146	27	19.249	15.342	22220	14	10.506	17.476	22294	33	13.418	18.187	22368	14	22.564	19.696	22442	29	8.386	21.285
22147	14	21.790	15.428	22221	27	10.742	17.173	22295	21	13.538	18.451	22369	13	23.602	19.306	22443	22	9.871	21.516
22148	30	21.926	15.501	22222	10	11.006	17.164	22296	27	14.084	18.755	22370	23	24.271	19.816	22444	9	10.725	21.104
22149	8	22.016	15.574	22223	15	11.045	17.324	22297	13	14.138	18.856	22371	15	24.728	19.376	22445	14	11.200	21.524
22150	21	22.770	15.788	22224	16	11.140	17.410	22298	14	14.328	18.385	22372	26	24.874	19.055	22446	19	11.765	21.124
22151	10	23.519	15.686	22225	38	11.208	17.088	22299	11	14.476	18.359	22373	10	0.170	20.702	22447	22	11.893	21.462
22152	15	24.154	15.194	22226	8	11.233	17.350	22300	11	14.523	18.602	22374	10	1.164	20.628	22448	11	11.980	21.186
22153	25	24.546	15.934	22227	17	11.710	17.046	22301	12	14.686	18.266	22375	11	1.483	20.560	22449*	59	12.548	21.606
22154	16	2.006	16.829	22228	9	11.856	17.282	22302	19	14.990	18.429	22376	16	1.529	20.665	22450	9	12.911	21.114
22155	14	3.526	16.268	22229	16	12.104	17.035	22303	16	15.219	18.687	22377	18	1.720	20.158	22451	29	13.086	21.586
22156	10	3.876	16.104	22230	13	12.516	17.710	22304	15	16.128	18.748	22378	10	1.926	20.995	22452	17	14.020	21.806
22157	35	4.014	16.718	22231	9	12.566	17.516	22305	11	16.704	18.612	22379	13	3.338	20.334	22453	28	14.886	21.026
22158	17	5.822	16.323	22232	20	12.726	17.458	22306	15	17.152	18.885	22380	19	3.598	20.742	22454	17	15.275	21.607
22159	12	6.284	16.165	22233	8	13.012	17.040	22307	14	17.728	18.867	22381	24	3.668	20.756	22455	30	15.530	21.055
22160	36	6.298	16.556	22234	9	13.015	17.424	22308	23	17.767	18.015	22382	10	4.715	20.274	22456	13	16.343	21.375
22161	13	6.881	16.796	22235	18	13.576	17.064	22309	10	17.865	18.602	22383	11	5.305	20.374	22457	26	16.803	21.817
22162	13	7.976	16.572	22236	30	13.757	17.798	22310*	54	18.132	18.994	22384	18	5.473	20.100	22458	15	17.782	21.418
22163	23	8.036	16.500	22237	12	14.289	17.965	22311	9	18.186	18.468	22385	13	5.936	20.736	22459	17	18.410	21.904
22164	21	8.686	16.395	22238	16	14.887	17.849	22312	10	18.556	18.006	22386	8	5.953	20.735	22460	10	19.236	21.103
22165	10	8.706	16.815	22239	8	14.985	17.286	22313	15	18.876	18.822	22387	25	6.301	20.320	22461	24	19.951	21.500
22166	9	9.824	16.675	22240	12	15.005	17.800	22314	13	19.156	18.479	22388	16	6.425	20.143	22462	28	20.700	21.014
22167	21	9.898	16.629	22241	32	15.556	17.393	22315	9	19.164	18.190	22389	8	7.615	20.331	22463	14	21.248	21.860
22168	12	10.184	16.088	22242	17	16.346	17.040	22316	9	19.234	18.778	22390	15	8.068	20.059	22464	17	21.436	21.330
22169	8	10.546	16.108	22243	8	16.356	17.933	22317	10	19.568	18.201	22391	11	8.579	20.724	22465	22	22.008	21.823
22170	12	10.770	16.214	22244	11	16.534	17.499	22318	16	19.892	18.498	22392	24	9.154	20.715	22466	8	23.877	21.551
22171	11	10.974	16.989	22245	13	17.703	17.440	22319	22	19.966	18.058	22393	10	9.796	20.363	22467	18	24.196	21.835
22172	17	11.104	16.319	22246	17	17.824	17.915	22320	8	20.005	18.116	22394	16	9.920	20.430	22468	15	24.686	21.797
22173	10	11.985	16.579	22247*	44	18.352	17.127	22321	8	20.104	18.286	22395	13	10.663	20.123	22469	20	25.685	21.785
22174	14	12.348	16.950	22248	23	18.656	17.074	22322	9	20.156	18.448	22396	10	10.690	20.306	22470	19	25.692	21.886
22175	18	12.698	16.836	22249	12	19.385	17.974	22323	11	20.184	18.218	22397	20	11.407	20.696	22471	24	25.946	21.608
22176	11	12.822	16.886	22250	13	19.406	17.370	22324	13	20.260	18.450	22398	15	11.459	20.378	22472	32	0.298	22.916
22177	15	12.870	16.152	22251	9	19.573	17.544	22325	9	20.368	18.777	22399	18	11.464	20.426	22473	21	1.164	22.076
22178	21	13.693	16.812	22252	14	19.668	17.786	22326	8	20.418	18.300	22400	11	12.519	20.270	22474	37	1.724	22.638
22179	14	13.886	16.642	22253	12	19.686	17.362	22327	11	20.540	18.214	22401	16	12.535	20.024	22475	9	1.907	22.440
22180	9	14.289	16.851	22254	14	19.758	17.609	22328	14	20.676	18.564	22402	17	12.720	20.344	22476*	38	2.786	22.628
22181	12	14.422	16.049	22255	9	19.796	17.546	22329	25	20.772	18.784	22403	12	13.093	20.094	22477	15	2.997	22.026
22182	11	15.272	16.122	22256	14	19.974	17.886	22330	18	20.976	18.304	22404	10	14.218	20.555	22478	22	3.645	22.704
22183	14	16.160	16.396	22257	11	20.104	17.757	22331	20	21.200	18.813	22405	21	14.225	20.036	22479	11	5.496	22.542
22184	12	16.964	16.119	22258	18	20.256	17.666	22332	16	21.394	18.237	22406	22	16.324	20.807	22480*	51	6.007	22.086
22185	16	18.064	16.174	22259	16	20.487	17.604	22333	13	22.563	18.600	22407	38	16.984	20.000	22481	14	6.942	22.234
22186	22	18.117	16.558	22260	15	20.614	17.688	22334	17	23.332	18.207	22408	18	17.574	20.075	22482	14	7.054	22.224
22187	20	18.886	16.057	22261	16	20.698	17.543	22335	20	23.393	18.231	22409	22	17.736	20.394	22483	9	7.862	22.707
22188	13	19.028	16.804	22262	11	22.198	17.780	22336	20	23.552	18.852	22410	11	18.498	20.632	22484	22	7.870	22.256
22189	24	19.344	16.857	22263	10	22.957	17.263	22337	16	24.142	18.530	22411	17	19.230	20.634	22485	16	8.686	22.841
22190	19	19.351	16.816	22264*	40	23.963	17.402	22338	13	25.649	18.035	22412	26	20.572	20.195	22486	12	10.145	22.994
22191	8	19.360	16.409	22265	8	25.272	17.182	22339	24	1.699	19.730	22413	21	21.025	20.734	22487	18	10.354	22.769
22192	31	19.418	16.714	22266	14	25.336	17.401	22340	10	3.676	19.126	22414	14	22.423	20.524	22488	15	10.407	22.996
22193	13	19.764	16.458	22267	11	25.368	17.341	22341	16	4.020	19.542	22415	10	22.538	20.470	22489	9	12.036	22.832
22194	16	20.184	16.986	22268	11	25.963	17.500	22342	14	4.055	19.566	22416	17	22.608	20.086	22490	14	12.104	22.453
22195	11	22.002	16.090	22269	9	1.812	18.373	22343	24	4.600	19.705	22417	17	22.793	20.417	22491	28	12.431	22.356
22196	20	22.700	16.638	22270	10	1.863	18.414	22344	11	5.167	19.262	22418	16	23.515	20.538	22492	22	12.731	22.704
22197	28	22.862	16.912	22271	34	2.036	18.112	22345	11	5.253	19.745	22419	18	24.004	20.547	22493	23	13.020	22.853
22198	15	23.236	16.185	22272	11	3.395	18.203	22346	10	6.442	19.350	22420	15	24.202	20.725	22494	20	13.040	22.208
22199*	31	23.379	16.374	22273	15	4.316	18.596	22347	21	6.780	19.475	22421	11	24.430	20.525	22495	9	13.179	22.626
22200	16	23.852	16.058	22274	17	5.046	18.435	22348	24	8.715	19.778	22422	10	24.726	20.687	22496	38	13.306	22.740
22201	12	24.790	16.649	22275	15	6.555	18.056	22349	23	9.656	19.793	22423	20	25.767	20.158	22497	15	14.293	22.294
22202	16	24.946	16.966	22276	14	6.626	18.572	22350	14	9.976	19.893	22424	22	0.080	21.828	22498	20	15.291	22.550
22203	17	25.195	16.370	22277	19	6.869	18.482	22351	23	10.816	19.757	22425	20	0.254	21.108	22499	38	15.756	22.872
22204	9	25.250	16.049	22278	34	6.870	18.326	22352	10	12.202	19.800	22426	9	0.464	21.699	22500	15	15.866	22.864
22205	13	25.366	16.854	22279	14	7.774	18.280	22353	36	12.642	19.904	22427	8	1.380	21.167	22501	13	16.577	22.667
22206	10	0.090	17.381	22280	36	8.155	18.882	22354	8	12.656	19.202	22428	10	1.454	21.201	22502	11	16.950	22.866
22207	15	0.092	17.926	22281	18	8.406	18.928	22355	33	12.685	19.938	22429	36	2.165	21.214</				



22516	50	20.634	22.988	22590	14	16.198	24.804	22653	24	2.102	0.144	22727	20	13.316	2.141	22801	21	0.714	5.448
22517	13	20.662	22.724	22591	15	16.336	24.985	22654	8	3.340	0.832	22728	44	13.406	2.784	22802*	65	1.655	5.707
22518	17	21.474	22.906	22592	13	16.736	24.586	22655	9	3.895	0.942	22729	19	13.628	2.560	22803	24	4.110	5.745
22519	21	22.034	22.623	22593	19	16.914	24.876	22656	34	5.704	0.942	22730	16	15.423	2.200	22804	13	4.153	5.771
22520	20	23.326	22.818	22594	10	18.092	24.187	22657	14	7.381	0.585	22731	15	15.546	2.844	22805	8	4.838	5.900
22521	34	23.722	22.801	22595	14	18.264	24.148	22658*	47	8.135	0.818	22732	12	18.412	2.207	22806	8	5.251	5.892
22522	9	24.018	22.172	22596*	59	18.878	24.324	22659	16	8.868	0.588	22733	9	18.928	2.886	22807	11	5.632	5.604
22523	26	25.525	22.268	22597	14	19.006	24.246	22660	11	9.234	0.140	22734	19	19.036	2.745	22808	24	5.847	5.124
22524	28	25.782	22.494	22598	26	19.654	24.067	22661	22	9.262	0.905	22735	11	20.328	2.943	22809	32	6.319	5.164
22525	15	0.675	23.194	22599	30	19.859	24.624	22662	12	9.306	0.404	22736	23	22.996	2.324	22810	31	6.477	5.764
22526	16	1.886	23.182	22600	13	20.678	24.486	22663	43	9.315	0.160	22737	24	23.906	2.263	22811	14	6.953	5.672
22527	14	2.566	23.465	22601	28	20.754	24.446	22664	12	10.092	0.075	22738	9	25.673	2.958	22812	9	7.354	5.776
22528	14	3.148	23.674	22602	23	21.707	24.902	22665	15	10.185	0.362	22739	22	0.738	3.308	22813	21	7.495	5.854
22529	15	3.338	23.766	22603	38	22.060	24.113	22666	10	10.432	0.912	22740	19	0.766	3.546	22814	22	8.760	5.736
22530	13	3.569	23.542	22604	36	23.493	24.908	22667	49	11.604	0.276	22741	19	0.852	3.793	22815	17	9.040	5.866
22531	17	5.831	23.578	22605	14	23.605	24.443	22668	9	11.791	0.554	22742	13	0.928	3.560	22816	14	9.776	5.592
22532	14	6.248	23.185	22606	16	0.064	25.012	22669	9	13.462	0.352	22743	18	4.060	3.680	22817	12	9.929	5.028
22533	27	6.310	23.756	22607	36	0.325	25.067	22670	8	14.317	0.806	22744	17	4.578	3.326	22818	11	11.315	5.806
22534	17	6.664	23.181	22608	15	0.749	25.348	22671	13	14.745	0.284	22745	12	5.146	2.177	22819	20	12.025	5.435
22535	20	6.884	23.444	22609	24	1.234	25.112	22672	9	15.662	0.764	22746	18	5.905	3.914	22820	16	12.380	5.410
22536	16	8.200	23.826	22610	16	2.436	25.014	22673	8	16.118	0.318	22747	18	6.054	3.290	22821	11	16.550	5.171
22537	16	8.382	23.845	22611	38	2.917	25.970	22674	24	16.182	0.758	22748	26	6.685	3.206	22822	16	17.684	5.785
22538	21	8.495	23.486	22612	20	3.906	25.586	22675	8	17.494	0.146	22749	11	7.098	3.776	22823	27	17.722	5.714
22539	19	9.106	23.273	22613	11	7.234	25.804	22676	14	19.785	0.702	22750	13	8.440	3.136	22824	11	17.834	5.934
22540	15	9.299	23.157	22614	17	7.386	25.888	22677	9	22.552	0.182	22751	24	9.861	3.988	22825	8	19.558	5.856
22541	12	9.648	23.484	22615	19	9.856	25.020	22678	21	24.022	0.556	22752	46	10.462	3.621	22826	24	20.290	5.117
22542	19	10.644	23.468	22616	18	10.606	25.465	22679	34	25.375	0.952	22753	9	10.642	3.030	22827	21	20.535	5.390
22543	10	10.750	23.261	22617	21	10.667	25.228	22680	22	2.115	1.790	22754	27	11.696	3.453	22828*	61	20.554	5.993
22544	39	10.776	23.272	22618	76	10.817	25.622	22681	8	3.543	1.980	22755	23	12.275	3.540	22829	13	20.918	5.240
22545	15	10.784	23.673	22619	8	11.917	25.084	22682*	49	4.322	1.638	22756	24	13.386	3.155	22830	42	20.991	5.616
22546	15	11.686	23.473	22620	30	13.175	25.446	22683	51	4.350	1.834	22757	28	14.427	3.475	22831	9	22.746	5.425
22547	26	12.874	23.615	22621	16	13.890	25.815	22684	16	4.393	1.854	22758	27	15.036	3.467	22832	58	25.877	5.624
22548	8	13.223	23.758	22622	19	14.066	25.138	22685	24	6.467	1.506	22759	14	15.971	3.125	22833	26	25.931	5.234
22549	8	13.442	23.676	22623	10	14.124	25.130	22686	24	7.664	1.344	22760	21	16.536	3.495	22834	16	1.031	6.811
22550	34	15.170	23.490	22624	13	15.664	25.022	22687	48	8.816	1.376	22761	23	19.063	3.444	22835	21	1.464	6.312
22551	10	15.399	23.634	22625	10	15.868	25.115	22688	34	9.264	1.875	22762	38	19.813	3.534	22836	8	1.577	6.196
22552	11	15.410	23.664	22626	37	15.874	25.428	22689	16	10.375	1.543	22763	19	22.500	3.976	22837	20	1.740	6.286
22553	10	15.930	23.214	22627	15	16.291	25.343	22690	11	10.796	1.015	22764*	44	22.904	3.826	22838	41	2.676	6.247
22554	9	17.504	23.625	22628	44	17.202	25.246	22691	19	11.844	1.079	22765	10	23.144	3.174	22839	9	2.740	6.626
22555	16	17.616	23.690	22629	18	17.404	25.306	22692	14	12.352	1.944	22766	23	23.405	3.180	22840	15	3.562	6.116
22556	40	20.354	23.836	22630*	72	17.424	25.252	22693	20	12.988	1.583	22767	15	23.496	3.173	22841	16	4.270	6.358
22557	22	21.450	23.608	22631	13	18.218	25.542	22694	9	13.277	1.902	22768	62	0.007	4.868	22842	11	4.544	6.200
22558	11	21.774	23.726	22632	24	18.554	25.805	22695	9	13.925	1.094	22769	26	0.444	4.748	22843	24	4.580	6.336
22559	17	22.131	23.264	22633	15	19.354	25.073	22696	19	14.264	1.952	22770*	84	1.700	4.562	22844	18	4.915	6.334
22560	16	22.312	23.027	22634	12	20.116	25.746	22697	24	14.284	1.693	22771	21	4.332	4.746	22845	13	5.004	6.886
22561	16	22.866	23.428	22635	12	20.746	25.194	22698	45	14.628	1.476	22772	24	4.692	4.308	22846	10	5.012	6.550
22562	11	23.464	23.208	22636	38	21.237	25.806	22699	11	15.270	1.397	22773	21	5.225	4.208	22847	37	5.148	6.078
22563	24	24.215	23.992	22637	10	21.395	25.454	22700	28	15.994	1.999	22774	27	5.280	4.947	22848	19	5.324	6.087
22564	40	25.587	23.744	22638	34	21.932	25.557	22701	42	16.311	1.040	22775	22	6.404	4.026	22849	15	5.980	6.507
22565	12	2.494	24.794	22639	10	22.160	25.883	22702	41	17.186	1.138	22776	30	6.736	4.082	22850	20	6.284	6.334
22566	15	3.234	24.667	22640	16	25.256	25.064	22703	17	17.977	1.776	22777	8	6.924	4.486	22851	22	6.318	6.106
22567	18	3.634	24.228					22704	20	18.024	1.886	22778	24	7.350	4.158	22852	17	6.686	6.560
22568	18	4.970	24.458					22705	42	19.925	1.924	22779	10	7.768	4.700	22853	19	6.694	6.642
22569	12	5.120	24.888					22706	27	19.990	1.330	22780	8	7.800	4.824	22854	11	6.786	6.386
22570	8	7.129	24.806					22707*	72	20.203	1.474	22781	17	8.284	4.492	22855	9	6.848	6.084
22571	13	7.802	24.172					22708*	48	20.552	1.253	22782	18	8.422	4.348	22856	29	7.278	6.183
22572	22	7.804	24.764					22709	44	21.349	1.601	22783	12	9.006	4.578	22857	42	7.690	6.375
22573	16	8.468	24.831					22710	27	22.124	1.690	22784	13	9.758	4.486	22858	9	8.650	6.430
22574*	78	8.976	24.356					22711*	68	22.258	1.942	22785	12	10.340	4.708	22859	10	8.931	6.599
22575	12	9.819	24.711					22712	14	23.801	1.504	22786	9	11.665	4.038	22860	12	9.001	6.763
22576	11	10.107	24.936					22713	11	24.298	1.897	22787	24	11.720	4.969	22861*	54	9.156	6.194
22577	20	10.293	24.964					22714	21	25.560	1.085	22788*	47	13.012	4.771	22862	8	9.741	6.635
22578	11	10.670	24.078					22715	20	2.087	2.572	22789	14	13.726	4.600	22863	8	10.065	6.540
22579*	54	10.912	24.826					22716	19	4.010	2.578	22790	12	14.299	4.750	22864	24	10.632	6.886
22580	17	11.182	24.695					22717	25	5.240	2.935								



22875	11	19.954	6.174	22949	12	14.275	8.094	23023	10	10.417	10.063	23097	17	14.547	12.506	23171	16	19.719	14.188
22876	18	20.200	6.568	22950	16	14.825	8.054	23024	20	10.730	10.872	23098	8	14.668	12.650	23172	19	21.230	14.365
22877	39	20.424	6.823	22951	10	15.310	8.377	23025	22	11.646	10.296	23099	14	14.932	12.770	23173	9	21.425	14.687
22878	32	21.944	6.590	22952	15	15.424	8.800	23026	16	12.422	10.790	23100	13	15.584	12.103	23174	8	22.216	14.466
22879	37	22.852	6.894	22953	25	15.640	8.148	23027*	52	12.642	10.252	23101	18	16.077	12.094	23175	9	24.919	14.113
22880	9	24.567	6.758	22954	8	17.264	8.362	23028	14	13.913	10.215	23102	15	20.028	12.845	23176	27	25.387	14.614
22881	12	0.226	7.658	22955	11	18.057	8.482	23029	11	14.665	10.394	23103	11	21.178	12.882	23177	16	25.422	14.973
22882*	45	1.719	7.406	22956	30	18.288	8.874	23030	9	15.546	10.556	23104	15	21.430	12.107	23178	11	25.870	14.777
22883	16	1.837	7.710	22957*	44	18.304	8.554	23031	23	18.482	10.279	23105	8	22.440	12.660	23179	11	1.150	15.668
22884	12	2.222	7.349	22958	10	20.338	8.464	23032	21	22.798	10.436	23106	13	22.880	12.033	23180	18	1.618	15.792
22885	15	2.514	7.574	22959	11	21.257	8.070	23033	13	22.958	10.074	23107	19	22.906	12.800	23181	22	2.600	15.353
22886	8	3.116	7.032	22960	19	22.478	8.032	23034	31	24.094	10.021	23108*	45	23.194	12.798	23182	9	3.060	15.777
22887	18	3.459	7.814	22961	16	23.670	8.904	23035	21	25.132	10.442	23109	10	23.269	12.680	23183	15	5.080	15.612
22888	42	3.994	7.775	22962	13	24.814	8.535	23036	22	1.970	11.953	23110	10	23.336	12.398	23184	27	6.172	15.310
22889	8	4.129	7.038	22963	21	24.958	8.628	23037	19	3.086	11.628	23111	15	23.965	12.856	23185	17	6.575	15.575
22890	26	5.878	7.724	22964*	28	0.626	9.979	23038	40	3.396	11.384	23112	22	23.980	12.560	23186	11	6.451	15.674
22891	31	6.777	7.944	22965	12	0.902	9.370	23039	25	4.192	11.104	23113	20	25.342	12.659	23187	12	7.667	15.800
22892	9	7.348	7.708	22966	14	3.302	9.034	23040	41	4.213	11.304	23114	13	25.378	12.445	23188	19	8.396	15.954
22893	22	7.464	7.436	22967	10	5.084	9.504	23041	15	5.788	11.067	23115	36	25.846	12.262	23189	14	10.134	15.036
22894	21	8.418	7.826	22968	11	5.358	9.876	23042	10	5.896	11.784	23116	17	1.270	13.366	23190	26	10.378	15.904
22895	8	9.043	7.506	22969	14	6.203	9.186	23043	8	6.140	11.245	23117	18	2.314	13.626	23191	9	10.738	15.626
22896	19	9.686	7.348	22970	15	6.461	9.868	23044	17	6.195	11.744	23118	12	2.705	13.500	23192	9	11.374	15.608
22897	13	11.790	7.868	22971	8	6.636	9.759	23045	21	6.334	11.751	23119	16	4.886	13.432	23193	12	11.984	15.988
22898	18	12.474	7.742	22972	12	6.769	9.558	23046	27	7.354	11.290	23120	25	4.994	13.917	23194	14	12.346	15.744
22899	12	12.850	7.398	22973	9	7.476	9.330	23047	23	7.568	11.674	23121	9	6.352	13.255	23195	11	12.703	15.756
22900	14	14.402	7.702	22974*	40	8.260	9.158	23048	23	8.594	11.956	23122	20	6.405	13.961	23196	11	13.187	15.566
22901	16	14.584	7.464	22975	17	8.266	9.822	23049	17	10.327	11.649	23123	8	6.588	13.502	23197	21	13.568	15.968
22902	9	15.512	7.207	22976	22	8.880	9.320	23050	17	11.716	11.154	23124	26	7.481	13.700	23198	19	14.224	15.728
22903	10	15.653	7.913	22977	9	9.020	9.207	23051	16	11.726	11.716	23125	20	7.616	13.966	23199	24	14.528	15.464
22904	11	17.130	7.633	22978	23	9.304	9.654	23052	14	11.822	11.942	23126	18	8.571	13.940	23200	11	17.358	15.706
22905	15	17.404	7.655	22979	24	9.648	9.870	23053	14	11.906	11.375	23127	14	8.576	13.171	23201	19	17.400	15.513
22906	22	17.606	7.038	22980	17	9.692	9.613	23054	9	12.060	11.224	23128	18	11.200	13.290	23202	18	17.482	15.583
22907	20	17.802	7.674	22981	19	9.733	9.580	23055	14	12.061	11.044	23129	26	11.397	13.698	23203	21	18.191	15.514
22908	25	17.960	7.409	22982	23	9.828	9.775	23056	9	12.559	11.912	23130	17	12.010	13.438	23204	18	18.398	15.385
22909	8	19.534	7.700	22983*	64	11.694	9.328	23057	16	12.757	11.466	23131	19	12.575	13.080	23205	12	20.256	15.124
22910	36	19.634	7.914	22984	10	11.724	9.628	23058	20	12.886	11.961	23132	15	12.996	13.536	23206*	39	20.750	15.068
22911	35	20.374	7.700	22985	9	11.956	9.822	23059	14	13.025	11.644	23133	20	13.356	13.304	23207	11	20.826	15.096
22912	8	22.428	7.361	22986	27	12.347	9.895	23060*	33	14.554	11.705	23134	18	13.660	13.936	23208	25	20.894	15.526
22913	46	22.677	7.740	22987	10	12.450	9.464	23061	9	15.330	11.100	23135	8	14.592	13.573	23209	15	21.018	15.436
22914	11	22.971	7.881	22988	17	13.057	9.796	23062	25	16.367	11.670	23136	18	14.744	13.562	23210	18	22.772	15.112
22915	9	23.136	7.648	22989	10	13.130	9.440	23063	23	16.418	11.202	23137	10	15.565	13.712	23211	12	24.128	15.603
22916	24	23.624	7.435	22990	12	13.252	9.965	23064	9	18.928	11.320	23138	17	15.842	13.919	23212	20	24.141	15.354
22917*	60	24.208	7.838	22991	31	13.576	9.215	23065	20	19.680	11.196	23139	17	16.282	13.265	23213	10	24.514	15.626
22918	36	24.506	7.272	22992	19	14.868	9.499	23066	8	20.470	11.217	23140	21	16.504	13.087	23214	23	24.745	15.479
22919	20	25.550	7.350	22993	8	15.132	9.850	23067	13	20.590	11.366	23141	10	18.525	13.080	23215	29	25.904	15.765
22920	18	0.394	8.240	22994	20	17.944	9.894	23068	33	20.852	11.211	23142	15	18.911	13.178	23216	18	0.244	16.412
22921	13	0.586	8.402	22995	8	18.522	9.910	23069	24	23.625	11.339	23143	12	19.756	13.603	23217	14	0.717	16.803
22922	17	1.456	8.332	22996	32	19.036	9.072	23070	21	24.512	11.346	23144	8	20.120	13.397	23218*	43	0.862	16.990
22923	18	1.466	8.567	22997	17	20.365	9.056	23071	22	0.909	12.933	23145	21	20.270	13.989	23219	13	1.318	16.765
22924	21	1.598	8.334	22998	29	20.966	9.234	23072	8	1.442	12.603	23146	35	20.337	13.586	23220	15	1.333	16.664
22925	13	2.072	8.541	22999	38	21.736	9.990	23073	26	3.024	12.118	23147	9	21.650	13.150	23221	29	2.021	16.525
22926	21	2.808	8.386	23000	39	24.956	9.750	23074	8	3.992	12.536	23148	12	22.322	13.758	23222	22	2.680	16.950
22927*	42	3.794	8.503	23001	13	25.067	9.029	23075	11	7.761	12.401	23149	23	22.344	13.978	23223	18	3.122	16.570
22928	10	3.983	8.200	23002	64	25.675	9.936	23076	12	8.565	12.179	23150	13	23.550	13.100	23224	34	3.790	16.696
22929	10	4.042	8.544	23003	13	0.041	10.666	23077	14	8.722	12.483	23151	25	0.030	14.668	23225	15	4.104	16.350
22930	19	4.343	8.710	23004	10	0.230	10.494	23078*	39	9.402	12.095	23152	16	0.394	14.848	23226	22	4.194	16.496
22931	8	4.677	8.929	23005	12	1.225	10.612	23079	36	9.512	12.735	23153	14	0.638	14.419	23227	20	4.386	16.160
22932	15	4.702	8.965	23006	15	2.574	10.628	23080	24	9.866	12.936	23154	13	2.442	14.630	23228	24	4.531	16.534
22933	12	5.654	8.072	23007	21	2.876	10.032	23081	21	10.015	12.075	23155	40	3.288	14.926	23229	17	4.868	16.364
22934	10	6.672	8.678	23008	18	3.188	10.706	23082	18	10.581	12.730	23156	22	4.451	14.814	23230	15	5.650	16.032
22935	12	7.534	8.056	23009	42	3.867	10.136	23083	12	10.627	12.020	23157	8	6.874	14.663	23231	12	5.952	16.764
22936*	54	9.146	8.123	23010	21	4.420	10.075	23084*	30	10.946	12.786	23158	22	7.292	14.838	23232	14	7.430	16.494
22937	37	9.285	8.499	23011	12	4.572	10.190	23085	11	10.988	12.354	23							



23245	8	12.165	16.735	23319	35	4.384	18.203	23393	9	22.077	19.157	23467*	62	12.355	21.715	23541	12	6.780	23.016
23246	15	12.415	16.318	23320	10	5.030	18.200	23394	11	23.072	19.786	23468	9	12.487	21.256	23542*	76	7.150	23.995
23247	20	12.810	16.063	23321*	47	6.160	18.878	23395	18	23.522	19.521	23469	14	12.708	21.250	23543	29	7.657	23.676
23248	12	13.737	16.344	23322	11	7.406	18.459	23396	26	24.552	19.917	23470	23	12.879	21.464	23544	8	7.723	23.470
23249	11	15.210	16.807	23323	23	7.974	18.975	23397	14	0.164	20.713	23471	13	14.068	21.820	23545	26	8.568	23.530
23250	10	15.314	16.705	23324	11	8.284	18.315	23398	23	1.822	20.410	23472	39	14.601	21.58c	23546	23	8.650	23.925
23251	22	15.490	16.600	23325	13	8.388	18.858	23399	8	2.890	20.802	23473	35	14.636	21.900	23547	39	10.112	23.071
23252	20	15.674	16.020	23326	17	8.998	18.470	23400	18	3.326	20.725	23474	23	15.078	21.200	23548	24	10.808	23.166
23253*	50	17.020	16.835	23327	23	9.175	18.728	23401	8	3.606	20.607	23475	8	15.487	21.266	23549	22	10.886	23.847
23254	18	17.630	16.944	23328	22	10.284	18.834	23402	32	6.682	20.916	23476	11	16.032	21.041	23550	28	11.956	23.331
23255	8	17.681	16.960	23329	15	11.175	18.088	23403	32	6.784	20.414	23477	28	16.986	21.940	23551*	49	11.981	23.670
23256	13	18.137	16.402	23330	12	11.405	18.248	23404	19	7.261	20.345	23478	17	17.006	21.304	23552	13	12.380	23.815
23257	16	19.175	16.488	23331	12	11.807	18.048	23405	19	8.246	20.952	23479	23	19.228	21.692	23553	25	12.420	23.460
23258*	45	22.128	16.358	23332	13	12.052	18.540	23406	13	8.445	20.584	23480	20	19.336	21.616	23554	11	12.488	23.660
23259	21	22.445	16.822	23333	24	12.533	18.400	23407	17	8.747	20.264	23481	24	20.736	21.594	23555	16	12.536	23.735
23260	12	22.700	16.890	23334	17	12.580	18.061	23408	13	9.530	20.309	23482	21	20.850	21.257	23556	25	12.752	23.269
23261	22	23.648	16.786	23335	8	12.762	18.106	23409	12	9.624	20.493	23483	22	21.052	21.250	23557	8	13.824	23.454
23262	16	24.296	16.204	23336	19	12.893	18.040	23410	37	10.295	20.500	23484	21	22.106	21.585	23558	39	14.342	23.664
23263	23	25.239	16.392	23337	20	12.924	18.150	23411	26	11.365	20.758	23485	9	22.932	21.206	23559	18	14.775	23.106
23264	20	25.947	16.006	23338	17	13.292	18.980	23412	15	12.632	20.772	23486	25	22.997	21.413	23560	23	15.056	23.128
23265	27	0.188	17.265	23339	20	16.038	18.974	23413*	65	12.806	20.832	23487	9	24.743	21.443	23561	22	15.481	23.254
23266	34	0.353	17.534	23340	16	16.242	18.052	23414	25	13.474	20.142	23488	24	25.069	21.510	23562	11	15.627	23.248
23267	8	2.285	17.234	23341	18	16.573	18.394	23415	26	13.539	20.581	23489	15	1.620	22.774	23563	42	15.775	23.726
23268	18	2.441	17.550	23342	10	16.716	18.250	23416	16	14.218	20.742	23490	19	1.788	22.430	23564	8	15.980	23.202
23269	9	2.751	17.368	23343	10	17.386	18.996	23417	9	14.530	20.889	23491	17	2.276	22.384	23565	20	17.369	23.176
23270	13	2.770	17.760	23344	21	19.332	18.324	23418	15	14.924	20.260	23492	13	2.880	22.547	23566	23	17.474	23.834
23271	16	2.843	17.976	23345	19	19.650	18.507	23419	26	15.100	20.096	23493	31	3.124	22.841	23567	20	18.808	23.260
23272	18	2.867	17.430	23346	11	20.092	18.075	23420	17	15.526	20.606	23494	22	3.284	22.454	23568	13	18.970	23.679
23273	13	2.874	17.916	23347	40	23.195	18.025	23421	21	15.855	20.573	23495	30	3.534	22.174	23569	40	19.255	23.106
23274	8	4.914	17.815	23348	21	23.364	18.564	23422	24	15.882	20.616	23496	22	4.275	22.789	23570	21	19.400	23.494
23275	19	6.200	17.464	23349	40	24.538	18.762	23423	11	16.926	20.592	23497	8	6.403	22.774	23571	26	19.614	23.522
23276	8	6.501	17.832	23350	43	25.074	18.146	23424	23	17.036	20.429	23498	26	6.588	22.922	23572	25	20.442	23.116
23277	20	6.567	17.168	23351	56	25.426	18.940	23425	10	17.662	20.664	23499	12	6.609	22.766	23573	13	20.570	23.244
23278	8	7.944	17.353	23352	14	0.096	19.224	23426	47	20.370	20.848	23500	13	7.540	22.110	23574	10	21.117	23.015
23279	16	8.078	17.022	23353	10	1.143	19.914	23427	10	20.432	20.334	23501	55	10.148	22.034	23575	38	21.838	23.954
23280	19	8.352	17.462	23354	17	1.669	19.126	23428	11	21.124	20.101	23502	32	10.470	22.832	23576	8	22.458	23.450
23281	12	9.436	17.876	23355	13	2.274	19.962	23429	9	21.503	20.399	23503	13	10.526	22.650	23577	47	22.568	23.055
23282	25	9.764	17.120	23356	30	2.409	19.640	23430	20	21.596	20.378	23504	11	10.992	22.925	23578	8	0.490	24.084
23283	12	9.825	17.080	23357	22	3.612	19.686	23431	9	21.676	20.732	23505	43	11.082	22.337	23579	20	1.850	24.584
23284	18	10.136	17.520	23358	9	4.184	19.354	23432	21	22.235	20.098	23506	14	13.600	22.298	23580	9	3.060	24.260
23285	17	10.940	17.435	23359	37	4.428	19.420	23433	23	22.832	20.776	23507	36	13.850	22.674	23581	55	3.210	24.310
23286	8	11.254	17.944	23360	14	5.323	19.215	23434	53	23.316	20.672	23508	14	14.029	22.876	23582	8	3.695	24.156
23287	8	11.339	17.438	23361	18	5.900	19.168	23435	10	23.946	20.100	23509	14	14.494	22.720	23583	10	7.623	24.446
23288	20	11.982	17.500	23362	20	5.990	19.576	23436	42	24.507	20.256	23510	21	15.040	22.400	23584	9	8.664	24.470
23289	8	12.540	17.927	23363	11	6.171	19.998	23437	22	25.573	20.212	23511	35	15.511	22.518	23585	53	9.108	24.250
23290*	38	12.969	17.335	23364	13	6.828	19.193	23438	8	25.688	20.207	23512	13	16.062	22.780	23586	13	11.102	24.964
23291	41	13.288	17.730	23365	15	7.592	19.749	23439	16	0.356	21.039	23513	29	18.608	22.213	23587	8	11.542	24.378
23292	17	13.469	17.860	23366	13	7.635	19.841	23440	10	0.018	21.250	23514	33	18.670	22.450	23588	21	12.338	24.760
23293	12	13.470	17.454	23367	24	8.210	19.314	23441	18	1.083	21.150	23515	14	18.721	22.438	23589	15	13.600	24.772
23294	9	14.145	17.370	23368	14	10.846	19.187	23442	24	1.566	21.147	23516	35	20.134	22.120	23590	23	13.740	24.789
23295	12	14.245	17.226	23369	13	11.384	19.058	23443	24	1.774	21.320	23517	26	21.330	22.650	23591	34	13.870	24.581
23296	22	14.310	17.702	23370	13	11.762	19.144	23444	9	1.993	21.118	23518	17	21.858	22.028	23592	12	15.366	24.809
23297	13	14.361	17.954	23371	20	11.864	19.278	23445	15	2.556	21.086	23519	22	22.102	22.803	23593	39	15.403	24.430
23298	10	14.866	17.805	23372	16	11.905	19.190	23446*	61	4.239	21.377	23520	62	22.260	22.083	23594	39	15.882	24.230
23299	25	16.067	17.404	23373*	40	12.015	19.804	23447	22	4.304	21.796	23521	33	22.814	22.504	23595	15	16.852	24.235
23300	19	16.844	17.086	23374	18	12.846	19.966	23448	17	4.480	21.200	23522	18	22.996	22.583	23596	21	17.802	24.260
23301	12	18.710	17.776	23375	13	12.954	19.575	23449*	47	5.006	21.735	23523	15	23.326	22.328	23597	19	18.425	24.801
23302*	46	18.900	17.740	23376	18	13.965	19.475	23450	12	5.412	21.466	23524	40	23.458	22.190	23598	8	20.382	24.270
23303	17	19.142	17.496	23377	16	14.188	19.266	23451	28	5.720	21.466	23525	19	23.742	22.298	23599	11	21.086	24.153
23304	17	19.300	17.835	23378	18	14.530	19.009	23452	23	5.770	21.585	23526	21	25.276	22.954	23600	24	21.126	24.460
23305	14	19.451	17.282	23379	15	15.419	19.668	23453	23	6.133	21.485	23527	21	0.938	23.428	23601	24	21.466	24.245
23306	20	19.866	17.292	23380	34	15.852	19.900	23454	21	6.965	21.133	23528	12	1.088	23.816	23602			



23615	23	6.080	25.114	23672	9	1.190	1.972	23746	10	9.356	3.180	23820*	36	19.962	5.070	23894	11	3.654	8.159
23616	19	8.364	25.050	23673	13	1.400	1.024	23747	8	9.544	3.968	23821	8	22.734	5.193	23895	8	3.814	8.780
23617	54	9.540	25.668	23674	22	2.761	1.406	23748	10	10.436	3.318	23822*	43	3.286	6.078	23896	18	5.720	8.895
23618	61	10.662	25.344	23675	14	2.946	1.536	23749	8	10.684	3.398	23823	8	3.514	6.219	23897	17	6.382	8.690
23619	17	11.014	25.186	23676	10	3.301	1.680	23750	8	11.446	3.932	23824	11	4.050	6.141	23898	9	7.672	8.528
23620	26	12.230	25.470	23677	9	3.490	1.608	23751	21	11.510	3.161	23825	17	4.342	6.559	23899	12	7.773	8.066
23621	27	13.177	25.550	23678	18	3.534	1.500	23752	16	12.200	3.712	23826	10	5.054	6.136	23900	8	10.129	8.192
23622	8	13.216	25.301	23679	22	4.444	1.448	23753	18	13.109	3.507	23827	8	5.518	6.430	23901	31	10.367	8.416
23623	25	14.065	25.892	23680	28	5.044	1.781	23754	14	13.605	3.086	23828	8	5.799	6.034	23902	11	10.726	8.662
23624	62	14.396	25.059	23681	10	5.230	1.806	23755	15	14.000	3.075	23829	11	6.270	6.534	23903	8	11.912	8.350
23625	16	14.642	25.326	23682	30	6.597	1.444	23756	15	14.576	3.604	23830	28	7.274	6.286	23904	13	12.434	8.185
23626	12	15.001	25.441	23683	20	6.674	1.874	23757	8	14.614	3.044	23831	8	8.253	6.098	23905	8	12.624	8.506
23627	28	15.576	25.402	23684	8	8.039	1.128	23758	16	16.225	3.614	23832	29	8.712	6.300	23906	13	13.126	8.750
23628	14	15.591	25.489	23685*	21	8.384	1.848	23759	16	16.476	3.241	23833	14	8.750	6.516	23907	10	13.266	8.939
23629	22	15.956	25.872	23686	20	9.282	1.966	23760	14	16.628	3.060	23834	15	11.923	6.100	23908	8	13.284	8.123
23630	8	16.518	25.072	23687	15	9.575	1.739	23761	8	20.889	3.298	23835	8	11.994	6.782	23909	8	13.626	8.091
23631	40	19.025	25.498	23688	11	9.844	1.582	23762	8	20.959	3.928	23836	13	13.778	6.052	23910	10	15.000	8.130
23632	34	19.037	25.883	23689	10	10.108	1.406	23763	27	21.608	3.964	23837	8	13.935	6.660	23911	32	15.722	8.686
23633	19	19.209	25.185	23690	8	10.200	1.220	23764*	39	23.086	3.100	23838	8	14.226	6.481	23912	8	16.520	8.800
23634	18	19.606	25.830	23691	24	10.614	1.744	23765	33	0.304	4.300	23839	8	14.268	6.746	23913	8	17.503	8.464
23635	20	20.444	25.104	23692*	27	11.396	1.140	23766	24	2.290	4.675	23840	20	14.284	6.266	23914	20	17.786	8.305
23636	37	20.848	25.282	23693	9	11.514	1.433	23767	13	3.296	4.938	23841	15	14.556	6.765	23915	36	22.700	8.484
23637	39	21.583	25.466	23694	8	13.092	1.289	23768	11	3.891	4.939	23842	12	15.281	6.504	23916	8	24.180	8.601
23638	18	23.506	25.180	23695*	32	13.422	1.754	23769	8	6.579	4.964	23843	8	16.022	6.149	23917	9	1.107	9.374
23639	11	24.047	25.651	23696	8	15.036	1.348	23770	8	7.430	4.928	23844	8	16.784	6.254	23918	8	1.323	9.874
23640	30	24.817	25.626	23697*	110	15.231	1.033	23771	37	9.195	4.890	23845	8	17.451	6.436	23919	16	2.392	9.088
23641	62	25.638	25.365	23698	18	15.621	1.352	23772	8	9.486	4.169	23846	23	17.548	6.070	23920	10	2.504	9.482
				23699	9	15.660	1.438	23773	8	9.671	4.800	23847	43	18.119	6.698	23921	8	4.036	9.216
				23700	10	15.750	1.856	23774	19	9.703	4.756	23848	8	18.264	6.430	23922	8	4.234	9.012
				23701*	24	17.015	1.792	23775	8	9.902	4.426	23849	14	18.332	6.680	23923	12	4.556	9.120
				23702	9	18.915	1.369	23776	8	11.404	4.506	23850	20	19.263	6.316	23924	8	4.736	9.036
				23703*	29	20.126	1.265	23777	15	11.634	4.030	23851	22	20.020	6.805	23925	8	5.122	9.013
				23704*	35	20.321	1.723	23778	13	11.786	4.310	23852	9	20.317	6.376	23926	26	7.784	9.466
				23705	13	21.455	1.446	23779	16	12.446	4.435	23853	14	20.634	6.210	23927	10	8.164	9.687
				23706	10	21.873	1.545	23780	9	13.374	4.725	23854*	43	21.822	6.768	23928	31	8.696	9.902
				23707	10	25.716	1.710	23781	8	14.006	4.796	23855	20	23.461	6.682	23929	8	9.185	9.893
				23708	8	0.142	2.334	23782	8	14.556	4.686	23856	21	0.275	7.371	23930	10	9.772	9.090
				23709	14	0.386	2.796	23783	19	14.792	4.796	23857	17	1.050	7.903	23931	8	9.860	9.340
				23710	14	1.296	2.733	23784	11	15.176	4.081	23858	24	1.930	7.736	23932	10	10.005	9.035
				23711	8	1.690	2.359	23785	15	17.900	4.750	23859	8	1.993	7.220	23933	13	11.656	9.248
				23712	8	1.826	2.072	23786	9	18.344	4.456	23860	16	2.978	7.804	23934	30	13.792	9.514
				23713	10	3.702	2.840	23787*	23	19.086	4.870	23861	8	4.166	7.798	23935	8	14.232	9.188
				23714*	52	4.768	2.567	23788	22	19.124	4.820	23862	14	4.343	7.642	23936	8	14.778	9.944
				23715	8	7.800	2.548	23789	10	20.330	4.444	23863	29	4.580	7.320	23937*	50	16.315	9.450
				23716	9	8.247	2.362	23790	8	21.824	4.980	23864	8	5.424	7.317	23938	27	16.381	9.153
				23717	15	8.712	2.655	23791	8	22.506	4.718	23865*	37	5.484	7.298	23939	17	18.144	9.064
				23718	11	11.564	2.739	23792	8	23.006	4.718	23866*	33	5.538	7.840	23940	8	19.152	9.050
				23719	20	11.592	2.186	23793	8	24.118	4.464	23867	15	5.844	7.304	23941	8	19.207	9.376
				23720	12	12.158	2.502	23794	8	24.650	4.638	23868*	39	6.160	7.780	23942	20	21.054	9.776
				23721	14	12.862	2.507	23795	8	0.157	5.904	23869	15	6.991	7.164	23943	8	21.535	9.937
				23722	15	13.634	2.344	23796	14	0.586	5.388	23870	24	7.022	7.157	23944	22	21.932	9.617
				23723	10	13.867	2.008	23797	8	2.288	5.676	23871	11	9.366	7.734	23945	30	22.023	9.390
				23724	8	13.893	2.017	23798	22	3.347	5.684	23872	8	9.495	7.678	23946	8	22.105	9.211
				23725	23	14.104	2.552	23799	12	4.468	5.014	23873	9	12.362	7.375	23947	20	23.330	9.890
				23726	10	14.900	2.132	23800	8	4.540	5.228	23874	23	14.863	7.448	23948	8	23.440	9.900
				23727	8	16.462	2.398	23801	8	6.616	5.352	23875	8	14.979	7.195	23949	8	23.631	9.484
				23728	19	16.606	2.536	23802	8	6.778	5.740	23876	8	15.051	7.792	23950	15	0.246	10.914
				23729	8	16.848	2.488	23803	8	7.650	5.115	23877	26	15.680	7.794	23951	10	0.404	10.549
				23730	8	19.077	2.800	23804*	33	8.497	5.143	23878	8	15.749	7.160	23952	26	1.536	10.487
				23731	8	22.489	2.136	23805	14	8.984	5.140	23879	20	17.408	7.035	23953	32	2.396	10.210
				23732	8	22.952	2.173	23806	13	9.522	5.682	23880	10	17.548	7.613	23954	15	2.580	10.900
				23733	8	0.540	3.650	23807	21	9.801	5.844	23881	22	18.428	7.768	23955*	60	3.112	10.392
				23734	8	0.658	3.157	23808	8	10.898	5.698	23882	11	19.331	7.455	23956	9	3.810	10.846
				23735	15	0.804	3.654	23809	8	11.310	5.446	23883	8	19.349	7.768	23957	8	3.949	10.384
				23736	8	0.893	3.641	23810	18	11.346	5.544	23884	8	19.828	7.939	23958	8	4.836	10.282
				23737	8	3.074	3.408	23811	8	11.867	5.142	23885	8	23.419	7.309	23959	8	5.764	10.158
				23738	9	3.423	3.964	23812	9	12.772	5.885	23886	8	24.424	7.623	23960	37	6.211	10.930
				23739	11	4.266	3.843	23813	9	13.564	5.900	23887	8	25.454	7.772	23961	9	6.868	10.892
				23740*	39	5.154	3.004	23814	16	13.									



23968	8	10.055	10.469	24042	8	13.866	12.606	24116	25	12.950	14.877	24190	28	17.110	16.554	24264	21	16.671	18.298
23969	8	10.325	10.199	24043	23	13.909	12.824	24117	10	13.376	14.292	24191	8	19.849	16.570	24265	13	18.546	18.892
23970	10	10.418	10.767	24044	25	14.808	12.318	24118	10	13.978	14.154	24192	16	20.086	16.274	24266	12	18.857	18.642
23971	8	10.440	10.260	24045	25	15.554	12.187	24119*	44	14.784	14.170	24193	9	20.098	16.516	24267	32	19.239	18.476
23972	22	11.193	10.068	24046	10	15.616	12.326	24120	10	15.163	14.588	24194	14	20.250	16.930	24268	9	20.516	18.532
23973*	43	11.282	10.152	24047	8	16.844	12.208	24121	8	15.583	14.126	24195	12	21.751	16.626	24269	8	20.834	18.730
23974	8	12.044	10.980	24048	32	18.008	12.720	24122	12	15.658	14.039	24196	21	21.784	16.215	24270	9	21.739	18.134
23975	12	14.306	10.750	24049	33	18.132	12.246	24123*	38	18.178	14.226	24197*	33	22.195	16.492	24271	19	23.363	18.849
23976	8	14.700	10.014	24050	8	18.802	12.214	24124	19	18.930	14.598	24198	13	22.408	16.299	24272	8	24.905	18.143
23977	8	15.330	10.852	24051	19	19.734	12.468	24125*	34	19.135	14.464	24199	9	24.626	16.539	24273	10	0.871	19.034
23978	12	15.363	10.328	24052	21	19.910	12.936	24126	8	19.163	14.220	24200	8	24.994	16.712	24274	8	1.035	19.993
23979	10	15.962	10.845	24053	8	20.495	12.594	24127	10	20.024	14.359	24201	19	0.163	17.904	24275	8	1.810	19.626
23980	8	16.622	10.967	24054	19	20.566	12.706	24128	20	20.164	14.490	24202	8	0.196	17.369	24276	8	1.826	19.446
23981	8	18.432	10.096	24055	14	24.484	12.175	24129	14	20.920	14.966	24203	12	1.112	17.906	24277	33	2.044	19.224
23982	8	19.171	10.903	24056	28	25.687	12.610	24130	12	23.084	14.985	24204	8	1.140	17.255	24278	8	2.260	19.745
23983	8	19.654	10.702	24057	8	0.370	13.278	24131	9	23.162	14.699	24205*	80	1.620	17.986	24279	8	2.420	19.391
23984*	40	20.680	10.356	24058*	40	0.650	13.271	24132	19	23.424	14.682	24206	8	3.534	17.172	24280*	45	2.927	19.397
23985	10	21.018	10.825	24059	8	1.015	13.569	24133	8	0.252	15.586	24207	8	3.844	17.230	24281	13	3.980	19.181
23986	38	21.540	10.528	24060	9	1.424	13.322	24134	8	1.132	15.777	24208	27	5.345	17.305	24282	8	4.222	19.704
23987	12	21.786	10.380	24061	19	1.440	13.030	24135	10	1.626	15.820	24209	10	5.927	17.434	24283	8	4.239	19.796
23988	20	23.532	10.850	24062	9	2.805	13.117	24136	18	2.228	15.941	24210	12	6.546	17.285	24284	19	4.635	19.604
23989	15	23.820	10.744	24063	8	6.348	13.436	24137	23	2.867	15.071	24211	9	7.603	17.060	24285	8	5.365	19.143
23990	10	24.043	10.052	24064	8	6.651	13.289	24138	9	2.900	15.430	24212	13	7.686	17.374	24286	8	5.512	19.628
23991	8	24.374	10.624	24065	18	6.710	13.630	24139	8	3.352	15.230	24213	21	8.420	17.608	24287	8	6.648	19.998
23992	14	25.756	10.674	24066	28	6.965	13.083	24140	8	4.214	15.013	24214	11	9.792	17.812	24288	12	7.090	19.740
23993	21	1.077	11.810	24067	22	7.014	13.932	24141	11	4.238	15.436	24215*	40	10.270	17.020	24289	8	7.786	19.850
23994	8	1.177	11.040	24068*	60	7.475	13.538	24142	10	4.576	15.954	24216	8	10.386	17.986	24290*	47	7.912	19.921
23995	8	1.757	11.868	24069	8	7.911	13.670	24143	20	5.532	15.165	24217	21	11.286	17.975	24291	8	8.050	19.899
23996	10	1.964	11.807	24070	11	8.435	13.438	24144	8	6.615	15.308	24218	32	11.442	17.912	24292	8	8.066	19.857
23997	8	2.628	11.749	24071	8	8.524	13.806	24145	17	6.890	15.700	24219	35	11.615	17.226	24293	19	8.792	19.430
23998	8	3.840	11.742	24072	11	9.114	13.444	24146	8	7.131	15.565	24220	8	12.107	17.970	24294	8	9.833	19.579
23999	18	3.892	11.308	24073	29	13.406	13.686	24147	29	9.744	15.847	24221	10	12.116	17.291	24295*	30	11.950	19.196
24000	12	4.248	11.012	24074	8	13.660	13.375	24148	21	10.196	15.890	24222	8	12.290	17.322	24296	10	12.269	19.350
24001	20	5.172	11.570	24075	8	14.125	13.655	24149	8	10.632	15.834	24223	16	12.935	17.800	24297	20	13.284	19.007
24002	8	5.801	11.677	24076	21	14.306	13.774	24150	12	10.647	15.640	24224	10	13.134	17.503	24298	8	14.118	19.900
24003	13	9.138	11.062	24077	8	14.588	13.362	24151	8	12.264	15.540	24225	12	15.867	17.824	24299	8	14.429	19.184
24004	21	9.304	11.014	24078	8	14.815	13.292	24152	13	13.934	15.006	24226	8	15.884	17.958	24300	13	16.670	19.386
24005	8	10.070	11.348	24079	8	15.176	13.988	24153	8	14.283	15.441	24227	33	16.104	17.078	24301	16	18.772	19.980
24006	22	10.340	11.366	24080	32	17.569	13.484	24154	8	15.255	15.542	24228	10	17.608	17.406	24302	13	19.788	19.627
24007	8	12.428	11.128	24081	33	19.743	13.208	24155	8	15.752	15.950	24229	8	17.704	17.170	24303	22	20.180	19.970
24008	34	12.465	11.965	24082	19	20.254	13.359	24156	18	16.637	15.973	24230	8	17.714	17.814	24304	8	22.922	19.420
24009	8	14.615	11.664	24083	34	20.985	13.374	24157	8	17.342	15.206	24231	8	17.855	17.699	24305	8	23.035	19.052
24010	20	15.705	11.069	24084	20	21.257	13.885	24158	16	18.104	15.030	24232*	41	18.265	17.460	24306	8	0.591	20.258
24011	35	15.956	11.878	24085	32	21.947	13.782	24159	9	18.365	15.392	24233	8	21.572	17.210	24307	26	2.024	20.720
24012	15	16.316	11.685	24086	8	23.262	13.662	24160	30	21.108	15.410	24234	10	21.744	17.498	24308	12	2.067	20.384
24013	12	17.170	11.675	24087	8	23.340	13.760	24161	33	24.012	15.292	24235	11	21.982	17.534	24309	11	3.094	20.670
24014	8	19.212	11.505	24088	9	23.548	13.058	24162	8	24.187	15.862	24236	10	22.089	17.364	24310	8	3.788	20.559
24015	10	20.046	11.152	24089	25	24.270	13.854	24163	8	1.614	16.065	24237	8	22.100	17.411	24311	11	4.826	20.020
24016	13	20.160	11.770	24090	8	25.840	13.590	24164	11	1.785	16.669	24238	13	23.534	17.822	24312	11	7.477	20.440
24017	10	20.411	11.226	24091	8	1.262	14.193	24165	8	1.998	16.090	24239	8	24.557	17.867	24313	38	9.884	20.353
24018	10	21.018	11.285	24092	8	2.390	14.572	24166	18	2.732	16.852	24240	8	24.774	17.214	24314	16	10.287	20.905
24019	10	21.289	11.594	24093	8	2.400	14.782	24167	8	3.017	16.386	24241	8	25.146	17.982	24315	30	10.719	20.180
24020	9	22.139	11.616	24094	8	3.745	14.615	24168	8	3.218	16.896	24242	12	25.425	17.027	24316	22	10.954	20.814
24021	15	22.644	11.015	24095	9	4.382	14.027	24169	22	3.393	16.218	24243	34	0.694	18.498	24317	18	11.054	20.970
24022	8	22.740	11.305	24096	8	5.424	14.842	24170	12	3.436	16.460	24244	34	2.574	18.604	24318	16	11.454	20.375
24023	8	23.192	11.162	24097	11	5.900	14.640	24171	12	4.395	16.368	24245	11	3.640	18.467	24319	8	12.424	20.265
24024	22	24.030	11.196	24098	21	6.684	14.182	24172	21	4.462	16.196	24246	15	5.784	18.320	24320	8	12.736	20.793
24025	8	0.339	12.509	24099*	39	6.712	14.140	24173	21	4.814	16.110	24247	8	9.601	18.425	24321	17	12.862	20.595
24026	8	0.799	12.871	24100	10	7.504	14.899	24174	34	5.342	16.888	24248	17	9.888	18.196	24322	25	13.326	20.838
24027	8	2.840	12.900	24101	20	7.822	14.672	24175	27	5.671	16.350	24249	8	10.646	18.094	24323	17	13.565	20.290
24028*	35	3.302	12.714	24102	20	7.838	14.982	24176	9	5.822	16.907	24250	8	11.598	18.410	24324	11	14.316	20.945
24029	15	4.900	12.326	24103	8	8.895	14.112	24177	10	6.274	16.094	24251	8	11.600	18.112	24325	8	14.800	20.246
24030	9	4.998	12.830	24104	8	8.920	14.288	24178											



24338	18	18.866	20.126	24412	16	2.828	23.414	24556	13	13.466	3.390	24630	12	7.081	7.822
24339	8	18.950	20.514	24413*	49	4.966	23.270	24557	13	13.788	3.642	24631	27	7.095	7.064
24340	20	19.202	20.735	24414	14	7.274	23.840	24558	21	13.962	3.278	24632	11	13.125	7.416
24341	8	20.510	20.101	24415	8	8.791	23.826	24559	11	17.339	3.432	24633	8	14.424	7.180
24342	8	22.310	20.494	24416	8	9.880	23.433	24560	31	18.498	3.724	24634	22	14.590	7.632
24343	8	22.764	20.100	24417	16	10.774	23.962	24561	12	18.706	3.784	24635*	70	16.745	7.582
24344	8	23.841	20.958	24418	13	11.808	23.734	24562	25	19.631	3.649	24636*	78	20.328	7.519
24345	14	23.996	20.812	24419	29	13.639	23.276	24563	10	0.310	4.503	24637	12	21.772	7.716
24346	15	0.354	21.250	24420	8	14.530	23.006	24564	11	1.314	4.502	24638	16	23.022	7.323
24347	8	0.459	21.684	24421	12	15.590	23.674	24565	10	1.411	4.236	24639	48	0.046	8.276
24348	12	0.525	21.887	24422	8	16.510	23.739	24566	15	4.160	4.864	24640	22	4.554	8.647
24349	30	0.835	21.140	24423	8	16.581	23.445	24567	10	4.937	4.140	24641	19	5.690	8.023
24350	8	2.276	21.907	24424*	44	18.041	23.910	24568	20	8.186	4.811	24642	8	5.756	8.640
24351	14	2.600	21.971	24425	8	19.595	23.341	24569	14	8.780	4.032	24643	24	6.300	8.588
24352*	55	3.858	21.712	24426	8	20.086	23.711	24570	9	11.721	4.392	24644	13	8.660	8.148
24353	9	4.307	21.652	24427	15	20.959	23.709	24571	26	12.052	4.483	24645	22	10.855	8.974
24354	14	5.126	21.532	24428	10	24.251	23.408	24572	10	12.858	4.178	24646	12	11.836	8.638
24355	8	5.535	21.859	24429	8	25.045	23.809	24573	12	16.884	4.358	24647	52	13.692	8.261
24356	37	5.829	21.134	24430	8	0.940	24.876	24574	15	17.180	4.724	24648	15	13.918	8.265
24357	22	8.694	21.942	24431	8	0.968	24.924	24575	11	17.583	4.738	24649	19	17.312	8.541
24358	8	8.768	21.632	24432	14	3.425	24.686	24576	9	17.708	4.208	24650	8	18.183	8.025
24359	10	9.125	21.600	24433	8	5.270	24.697	24577	11	19.187	4.634	24651	42	18.318	8.032
24360	15	13.276	21.601	24434*	18	5.616	24.784	24578	20	20.082	4.770	24652	13	19.966	8.300
24361	8	14.990	21.333	24435	13	5.990	24.645	24579	13	20.248	4.780	24653	10	22.114	8.998
24362	9	16.574	21.674	24436	8	7.036	24.649	24580	9	20.804	4.736	24654	12	22.121	8.715
24363	8	16.724	21.217	24437	8	7.400	24.988	24581	24	22.892	4.850	24655	15	22.477	8.128
24364	12	18.728	21.802	24438	23	7.580	24.666	24582	9	23.080	4.996	24656	13	23.246	8.863
24365	17	22.120	21.233	24439	11	8.598	24.906	24583*	62	3.316	5.003	24657	9	23.938	8.126
24366	23	22.771	21.870	24440	13	8.850	24.464	24584	36	4.315	5.562	24658	13	25.987	8.086
24367	11	23.450	21.796	24441	15	11.894	24.392	24585	8	5.939	5.513	24659	27	0.696	9.671
24368	8	25.201	21.013	24442	22	11.943	24.330	24586	37	7.285	5.310	24660	10	1.412	9.818
24369	14	0.354	22.982	24443	12	13.231	24.102	24587	30	8.096	5.760	24661	24	3.916	9.286
24370	8	0.863	22.800	24444	9	13.726	24.300	24588	8	8.279	5.717	24662	30	5.998	9.056
24371	26	0.994	22.662	24445	8	16.716	24.570	24589	18	8.302	5.714	24663	37	7.244	9.920
24372	11	1.274	22.767	24446	14	16.945	24.131	24590*	48	9.356	5.168	24664	14	7.600	9.722
24373	8	1.399	22.118	24447*	30	19.320	24.689	24591	10	9.646	5.391	24665	9	8.138	9.593
24374	8	2.650	22.761	24448	19	20.280	24.016	24592	16	11.054	5.566	24666	13	8.552	9.280
24375	16	3.832	22.250	24449	8	20.564	24.924	24593	11	11.266	5.923	24667	16	8.640	9.330
24376	21	3.854	22.270	24450	22	20.750	24.340	24594	9	11.683	5.234	24668	20	8.715	9.279
24377	12	4.146	22.958	24451*	22	21.246	24.224	24595	27	12.842	5.024	24669	8	9.816	9.530
24378	10	4.644	22.328	24452	10	23.826	24.416	24596*	60	12.850	5.062	24670	17	13.157	9.277
24379	8	4.691	22.335	24453*	14	24.775	24.368	24597	23	13.658	5.348	24671	15	13.554	9.319
24380	8	4.983	22.663	24454	9	25.454	24.033	24598	10	13.805	5.548	24672	35	15.891	9.618
24381	8	6.164	22.356	24455	8	1.070	25.650	24599	27	15.958	5.988	24673	27	16.338	9.160
24382	8	6.780	22.744	24456	10	1.795	25.590	24600	10	17.901	5.924	24674	11	18.177	9.492
24383	8	7.486	22.150	24457	34	3.198	25.812	24601	13	18.024	5.350	24675	19	18.506	9.210
24384	10	7.561	22.240	24458	8	3.836	25.180	24602	13	20.786	5.641	24676	22	20.487	9.308
24385	32	8.070	22.530	24459	8	3.984	25.940	24603	13	21.422	5.335	24677	9	20.996	9.798
24386	8	8.578	22.505	24460	10	4.264	25.696	24604	17	23.740	5.400	24678	10	21.097	9.282
24387*	47	9.454	22.052	24461	13	4.458	25.460	24605	31	0.784	6.462	24679	17	21.706	9.388
24388	8	10.144	22.079	24462	8	4.675	25.490	24606	24	3.653	6.188	24680	24	22.895	9.377
24389	18	10.346	22.200	24463	9	5.164	25.594	24607	17	4.260	6.246	24681	62	25.870	9.121
24390	10	10.572	22.921	24464*	41	5.532	25.523	24608	17	4.600	6.943	24682	19	0.025	10.809
24391	8	10.824	22.159	24465	9	5.666	25.669	24609	31	4.995	6.230	24683	24	0.910	10.630
24392	8	15.343	22.046	24466	23	6.136	25.657	24610	9	5.288	6.650	24684	23	1.195	10.520
24393	9	16.436	22.985	24467	11	8.400	25.206	24611	10	5.650	6.400	24685	39	1.411	10.966
24394	23	16.794	22.417	24468	8	8.588	25.966	24612	8	7.209	6.530	24686	22	3.132	10.424
24395	22	17.042	22.946	24469	8	9.044	25.516	24613	8	8.070	6.336	24687	8	4.040	10.356
24396	17	17.766	22.095	24470	25	9.464	25.411	24614	10	8.315	6.114	24688*	75	4.422	10.951
24397	8	18.084	22.338	24471	8	13.968	25.074	24615	44	9.712	6.210	24689	18	4.462	10.950
24398	8	18.520	22.620	24472	9	15.104	25.148	24616	25	10.620	6.922	24690	9	8.363	10.902
24399	23	18.623	22.541	24473	15	16.494	25.272	24617	10	10.995	6.400	24691	12	9.817	10.591
24400	8	18.678	22.286	24474*	49	16.900	25.368	24618	11	11.799	6.358	24692	10	12.384	10.827
24401	17	18.834	22.417	24475	8	19.240	25.796	24619	31	16.742	6.303	24693	18	13.355	10.472
24402	8	19.585	22.310	24476*	56	19.986	25.772	24620	15	16.810	6.036	24694	18	13.974	10.157
24403	8	20.096	22.280	24477	8	21.361	25.590	24621*	57	17.350	6.885	24695	11	14.175	10.845
24404	19	21.498	22.960	24478	12	21.376	25.176	24622	21	18.672	6.385	24696	19	15.054	10.498
24405	8	21.684	22.420	24479	8	23.764	25.892	24623	14	2.327	7.758	24697	15	16.308	10.235
24406	8	24.946	22.284	24480	8	25.035	25.879	24624	13	2.790	7.523	24698	13	16.600	10.283
24407	21	0.110	23.530	24481	8	25.370	25.274	24625	10	3.976	7.338	24699	18	20.655	10.850
24408	8	0.528	23.056					24626	11	4.139	7.246	24700	13	25.284	10.769
24409	8	1.202	23.100					24627	12	4.330	7.610	24701	13	25.418	10.214
24410	8	2.269	23.486					24628	38	5.804	7.678	24702	10	0.126	11.094
24411	13	2.536	23.490					24629	10	6.790	7.588	24703	24	1.880	11.937



24704	9	3.730	11.123	24778	21	13.096	15.560	24852	35	18.616	19.552	24926	25	22.774	23.370	25021	8	2.433	1.104
24705	15	4.021	11.542	24779	23	13.778	15.900	24853	11	19.100	19.320	24927	17	22.990	23.297	25022	13	2.586	1.462
24706	8	4.370	11.298	24780	14	14.223	15.314	24854	19	19.361	19.710	24928	17	23.933	23.315	25023	11	3.833	1.178
24707*	49	5.084	11.378	24781	9	15.140	15.075	24855	28	19.880	19.158	24929	19	1.398	24.190	25024	16	3.936	1.700
24708	16	6.928	11.200	24782	26	19.140	15.316	24856	12	21.666	19.228	24930*	38	2.350	24.130	25025	8	3.940	1.020
24709	47	8.400	11.960	24783	8	19.778	15.220	24857	12	22.002	19.884	24931	17	5.480	24.498	25026	15	7.163	1.208
24710	19	8.708	11.289	24784	22	21.479	15.242	24858	9	22.148	19.618	24932	10	10.107	24.269	25027	16	11.766	1.915
24711	20	9.474	11.660	24785	22	23.900	15.478	24859	27	22.490	19.986	24933	24	14.852	24.638	25028	8	12.522	1.291
24712	16	11.110	11.094	24786	11	25.326	15.296	24860*	53	24.182	19.046	24934	34	14.880	24.468	25029	10	16.082	1.454
24713	35	13.399	11.690	24787	8	25.942	15.172	24861	37	24.604	19.072	24935	13	15.931	24.680	25030	19	16.322	1.440
24714	25	15.130	11.528	24788	13	2.082	16.300	24862	24	1.514	20.584	24936	33	20.218	24.768	25031	23	16.350	1.750
24715	9	15.163	11.510	24789	11	2.246	16.976	24863	10	2.726	20.766	24937	10	21.789	24.412	25032	8	19.282	1.294
24716	15	16.204	11.202	24790	16	2.450	16.467	24864	11	5.084	20.390	24938*	38	21.831	24.058	25033	20	20.436	1.384
24717	36	18.092	11.172	24791	17	2.882	16.778	24865	18	11.183	20.746	24939	13	24.170	24.565	25034	16	21.386	1.492
24718	33	20.648	11.476	24792	8	3.414	16.342	24866	37	11.851	20.072	24940	19	2.624	25.630	25035	10	22.194	1.087
24719	14	21.848	11.592	24793	27	3.842	16.188	24867	11	12.166	20.608	24941	19	2.955	25.035	25036	27	25.624	1.998
24720	25	22.064	11.497	24794	14	4.036	16.600	24868	24	12.470	20.349	24942	10	5.909	25.865	25037	12	0.120	2.243
24721*	45	23.826	11.480	24795	10	4.114	16.115	24869	15	14.138	20.426	24943	28	7.243	25.126	25038	24	4.537	2.810
24722	11	0.956	12.838	24796	8	4.345	16.192	24870	33	14.228	20.632	24944	12	8.402	25.843	25039	19	7.332	2.774
24723	35	3.088	12.362	24797	35	8.550	16.517	24871	9	15.819	20.488	24945	34	8.624	25.020	25040	20	7.368	2.434
24724	20	6.432	12.066	24798	24	9.822	16.458	24872*	60	19.664	20.932	24946	33	9.524	25.025	25041	24	7.575	2.192
24725	12	6.539	12.034	24799	29	10.435	16.670	24873	12	23.414	20.948	24947	15	15.662	25.059	25042*	39	8.365	2.080
24726	44	6.785	12.575	24800	26	11.457	16.986	24874*	62	24.573	20.854	24948	19	18.170	25.286	25043*	33	10.493	2.573
24727	12	7.004	12.128	24801	11	13.794	16.880	24875	9	0.292	21.843	24949	10	18.188	25.035	25044	8	12.118	2.309
24728*	94	8.170	12.668	24802	9	18.350	16.424	24876	34	0.302	21.662	24950	38	22.322	25.108	25045	23	12.568	2.085
24729	11	8.924	12.107	24803	10	19.400	16.757	24877	22	0.977	21.578	24951	30	23.082	25.385	25046	23	13.578	2.824
24730	13	9.270	12.430	24804	38	20.779	16.800	24878	37	4.766	21.642	24952	12	24.726	25.562	25047	24	17.758	2.477
24731	11	11.176	12.788	24805	42	24.712	16.216	24879	21	5.848	21.722	24953	22	25.985	25.504	25048	8	20.588	2.148
24732	10	12.182	12.321	24806*	49	4.672	17.364	24880	15	7.254	21.564					25049	9	21.604	2.032
24733	23	12.886	12.084	24807	15	4.758	17.057	24881	14	9.332	21.150					25050	12	1.476	3.165
24734	8	15.066	12.214	24808*	65	5.557	17.304	24882	23	13.558	21.837					25051	8	3.637	3.834
24735	18	15.103	12.480	24809	21	5.942	17.438	24883	13	18.558	21.824					25052	8	5.847	3.056
24736	35	16.034	12.302	24810	32	6.968	17.305	24884	10	20.394	21.682					25053	9	7.054	3.200
24737	10	16.801	12.985	24811	22	6.972	17.806	24885	11	21.320	21.846					25054	9	7.880	3.598
24738	19	22.336	12.370	24812*	44	8.378	17.629	24886	16	22.491	21.506					25055	8	8.896	3.122
24739	15	22.772	12.364	24813	21	9.490	17.871	24887	10	22.873	21.168					25056	25	12.969	3.826
24740	14	0.678	13.446	24814	15	9.594	17.767	24888	11	24.838	21.257					25057	8	13.312	3.660
24741	35	1.690	13.622	24815*	60	11.991	17.421	24889	15	2.483	22.044					25058	8	13.535	3.388
24742	20	5.313	13.023	24816	11	14.740	17.204	24890	33	3.762	22.644					25059	23	14.467	3.576
24743	10	5.358	13.270	24817	39	17.108	17.484	24891*	85	3.898	22.930					25060	10	15.692	3.584
24744	16	7.244	13.184	24818	14	17.168	17.851	24892	15	6.795	22.050					25061	14	15.972	3.004
24745	13	7.310	13.135	24819	35	17.647	17.612	24893	9	7.935	22.725					25062	18	16.170	3.489
24746	17	7.522	13.460	24820	11	18.471	17.845	24894	56	8.594	22.864					25063	8	18.078	3.638
24747	11	7.897	13.250	24821	16	18.522	17.234	24895	12	10.792	22.279					25064	8	18.297	3.863
24748	27	9.372	13.500	24822	12	25.068	17.592	24896	18	15.308	22.990					25065	8	18.859	3.315
24749*	52	11.257	13.622	24823	32	25.960	17.945	24897	10	15.434	22.790					25066	12	19.670	3.934
24750	12	11.802	13.100	24824	10	0.533	18.840	24898	23	16.245	22.778					25067	11	19.884	3.643
24751	27	12.335	13.654	24825	19	0.852	18.629	24899	17	18.006	22.180					25068*	38	20.414	3.542
24752*	45	14.716	13.823	24826*	62	7.145	18.197	24900*	55	22.174	22.316					25069	18	20.910	3.516
24753	10	15.182	13.450	24827	14	7.279	18.100	24901	49	25.608	22.107					25070	8	21.576	3.332
24754	9	15.499	13.301	24828	17	13.245	18.268	24902	16	0.360	23.426					25071	11	22.302	3.776
24755	27	17.216	13.040	24829	30	15.646	18.231	24903	18	1.806	23.175					25072	30	22.358	3.884
24756	11	18.218	13.540	24830	15	16.286	18.120	24904	13	2.610	23.565					25073	22	23.435	3.554
24757	11	18.438	13.544	24831	16	18.410	18.431	24905	18	3.015	23.782					25074	10	25.403	3.724
24758	13	22.474	13.946	24832	17	18.924	18.811	24906	8	3.556	23.199					25075	17	25.896	3.000
24759	60	25.014	13.328	24833	10	22.334	18.936	24907	14	4.346	23.928					25076	8	1.219	4.688
24760	28	0.518	14.771	24834	35	23.166	18.018	24908*	53	5.670	23.088					25077	8	2.374	4.176
24761	11	0.594	14.480	24835	39	23.176	18.360	24909	10	6.673	23.529					25078	17	3.641	4.950
24762	15	0.856	14.460	24836	11	0.276	19.886	24910	10	9.620	23.540					25079	16	3.746	4.772
24763	9	5.311	14.865	24837	10	0.422	19.202	24911*	58	10.520	23.120					25080	21	4.094	4.852
24764	39	9.562	14.256	24838	41	4.200	19.324	24912	50	12.764	23.896					25081	20	6.458	4.024
24765	10	9.952	14.007	24839	48	7.508	19.982	24913	11	12.850	23.439					25082	8	6.758	4.612
24766	21	13.626	14.941	24840	35	7.599	19.594	24914	14	13.949	23.653					25083*	40	7.233	4.035
24767	8	20.146	14.834	24841	37	8.095	19.220	24915	9	15.215	23.687					25084	21	7.301	4.520
24768	8	21.439	14.431	24842	9	8.908	19.064	24916	18	16.230	23.458					25085	8	8.600	4.474
24769	11	24.932	14.507	24843	26	9.600	19.600	24917	16	16.496	23.090					25086	8	8.736	4.710
24770	36	1.450	15.064	24844	13	10.316	19.051	24918	10	16.772	23.904					25087*			



25095	8	16.219	4.946	25169	11	9.681	7.278	25243	15	24.950	9.695	25317	16	23.700	12.436	25391	8	13.031	15.136
25096	15	18.300	4.964	25170	12	10.656	7.578	25244	8	0.516	10.846	25318	8	24.371	12.564	25392	8	14.452	15.946
25097	9	19.270	4.500	25171	8	11.134	7.661	25245	15	2.946	10.445	25319	8	24.638	12.857	25393	10	16.874	15.938
25098	9	20.776	4.709	25172*	33	11.508	7.715	25246	12	6.621	10.170	25320	9	1.134	13.510	25394	8	19.476	15.649
25099	10	21.516	4.700	25173	15	11.588	7.264	25247	10	8.056	10.278	25321*	40	2.565	13.565	25395	10	20.860	15.974
25100	13	21.974	4.959	25174	10	11.638	7.786	25248	10	8.174	10.734	25322	8	4.326	13.179	25396	8	21.646	15.404
25101	29	22.180	4.376	25175	9	11.716	7.694	25249	13	9.242	10.479	25323	14	4.665	13.267	25397	8	22.242	15.160
25102	16	22.740	4.696	25176	8	14.080	7.832	25250	18	9.722	10.090	25324	21	5.034	13.655	25398	8	22.894	15.081
25103	8	22.868	4.930	25177	15	14.313	6.438	25251	9	10.765	10.047	25325*	24	6.700	13.516	25399	21	22.935	15.310
25104	8	0.056	5.240	25178	25	16.938	7.160	25252*	39	10.920	10.235	25326	8	7.144	13.765	25400*	40	23.130	15.438
25105	17	0.375	5.108	25179	13	17.125	7.239	25253*	23	13.450	10.280	25327	8	7.489	13.794	25401	21	24.023	15.542
25106	13	0.560	5.252	25180	9	17.486	7.308	25254	8	13.977	10.907	25328	11	8.877	13.127	25402*	45	24.604	15.128
25107	14	1.225	5.648	25181	12	18.862	7.056	25255	17	15.105	10.720	25329	11	8.880	13.350	25403*	40	24.610	15.178
25108	10	2.884	5.886	25182	8	19.309	7.904	25256	20	16.575	10.094	25330	19	8.910	13.126	25404	8	25.130	15.246
25109	24	4.810	5.745	25183	14	19.656	7.142	25257	8	17.160	10.144	25331	8	11.354	13.398	25405	23	2.294	16.456
25110	11	5.076	5.010	25184	12	20.165	7.080	25258	23	20.042	10.050	25332	8	11.641	13.121	25406	25	4.954	16.472
25111	20	6.148	5.676	25185	12	21.166	7.622	25259	14	20.246	10.080	25333	12	11.785	13.851	25407*	80	5.464	16.174
25112	10	6.246	5.248	25186*	47	22.113	7.494	25260	20	21.269	10.884	25334	21	12.108	13.712	25408	8	6.884	16.274
25113	22	6.462	5.901	25187	12	24.913	7.666	25261	30	21.684	10.330	25335	8	13.658	13.779	25409	19	7.560	16.550
25114	8	6.814	5.693	25188	30	25.224	7.770	25262	35	22.386	10.130	25336	8	13.856	13.586	25410	8	7.664	16.082
25115	21	7.094	5.721	25189	10	25.365	7.654	25263	12	24.501	10.606	25337	8	14.452	13.974	25411	16	7.896	16.299
25116	13	7.884	5.510	25190	9	0.200	8.473	25264	9	25.406	10.168	25338	10	15.114	13.299	25412	8	7.923	16.703
25117	8	9.056	5.864	25191	8	3.450	8.834	25265	18	25.428	10.652	25339	26	15.876	13.482	25413	8	8.542	16.370
25118	8	11.766	5.898	25192	13	3.450	8.354	25266	32	25.928	10.339	25340	20	16.162	13.681	25414	24	8.652	16.705
25119	25	12.974	5.798	25193	16	3.495	8.317	25267*	32	1.363	11.727	25341	14	16.282	13.300	25415	8	12.576	16.194
25120	9	13.014	5.914	25194	23	3.774	8.200	25268	11	1.720	11.768	25342	13	19.786	13.470	25416	8	13.886	16.086
25121	19	13.050	5.616	25195	17	4.813	8.994	25269	12	2.816	11.000	25343	8	20.400	13.566	25417	33	15.614	16.874
25122	10	14.166	5.972	25196	9	5.998	8.470	25270	8	2.840	11.416	25344	8	20.804	13.898	25418	8	16.024	16.514
25123	20	14.519	5.134	25197	20	6.191	8.886	25271	10	3.688	11.950	25345*	40	23.472	13.814	25419	8	17.048	16.940
25124	14	15.350	5.794	25198	15	7.244	8.095	25272	8	6.650	11.810	25346	13	23.789	13.382	25420	10	18.375	16.855
25125	8	16.448	5.804	25199	12	11.711	8.232	25273	20	8.126	11.489	25347	15	23.852	13.782	25421	8	18.594	16.256
25126	11	17.780	5.945	25200	8	14.280	8.681	25274	15	10.316	11.894	25348*	42	23.865	13.594	25422	12	19.234	16.074
25127	20	17.850	5.330	25201	8	14.669	8.234	25275	27	10.432	11.197	25349	8	23.953	13.058	25423	12	19.240	16.674
25128	11	17.871	5.917	25202	13	14.900	8.060	25276	8	12.446	11.796	25350	13	24.000	13.991	25424	8	19.944	16.186
25129	8	18.007	5.994	25203*	40	15.318	8.884	25277	10	13.172	11.797	25351	15	25.795	13.298	25425	12	22.052	16.146
25130	8	19.281	5.020	25204	12	17.186	8.108	25278	8	13.246	11.773	25352	12	0.035	14.200	25426	9	22.912	16.818
25131*	39	23.361	5.656	25205	8	18.115	8.556	25279*	33	13.436	11.125	25353	8	1.690	14.376	25427	13	2.665	17.826
25132	8	1.926	6.143	25206	8	19.300	8.343	25280	8	13.624	11.654	25354	13	4.615	14.998	25428	10	3.208	17.756
25133*	40	4.462	6.439	25207	8	20.609	8.585	25281	34	17.517	11.494	25355	8	4.916	14.567	25429	8	3.600	17.054
25134	8	4.924	6.601	25208	8	21.916	8.380	25282	10	17.624	11.156	25356	8	5.152	14.865	25430	8	7.855	17.779
25135	12	5.154	6.280	25209	18	22.556	8.536	25283	11	17.882	11.018	25357	15	5.382	14.021	25431	11	8.557	17.906
25136	12	5.702	6.920	25210	20	22.953	8.755	25284	30	18.549	11.782	25358	19	6.840	14.726	25432	8	10.402	17.750
25137	9	7.606	6.985	25211	10	23.438	8.556	25285	8	19.900	11.224	25359	19	7.912	14.457	25433	8	11.100	17.125
25138*	33	7.754	6.228	25212	15	23.716	8.586	25286	9	20.475	11.226	25360	8	9.695	14.216	25434	12	11.522	17.205
25139	8	7.816	6.171	25213	8	25.083	8.290	25287	10	20.495	11.695	25361	8	9.850	14.986	25435	11	12.864	17.447
25140	14	8.178	6.915	25214	19	0.414	9.632	25288	8	21.182	11.382	25362	8	11.970	14.898	25436	10	14.155	17.572
25141	10	8.251	6.327	25215	8	0.762	9.115	25289	10	22.272	11.114	25363	12	12.984	14.044	25437	9	14.164	17.386
25142	12	8.342	6.366	25216	10	3.153	9.001	25290	14	23.494	11.135	25364	9	14.325	14.537	25438	8	14.185	17.042
25143	8	9.368	6.804	25217*	40	3.386	9.349	25291	38	23.930	11.464	25365	14	15.662	14.688	25439	9	14.810	17.300
25144	9	10.754	6.164	25218	9	3.531	9.130	25292	14	0.316	12.622	25366*	60	15.942	14.244	25440	10	15.114	17.225
25145	20	12.138	6.507	25219	8	3.540	9.316	25293	8	3.966	12.883	25367	20	17.252	14.950	25441	12	15.372	17.356
25146*	38	14.108	6.531	25220	10	5.234	9.900	25294	12	4.794	12.956	25368	22	18.916	14.876	25442	12	15.892	17.771
25147	21	14.384	6.345	25221	12	6.100	9.715	25295	8	6.848	12.485	25369	9	19.643	14.864	25443	8	16.346	17.742
25148	8	14.511	6.667	25222	18	6.834	9.425	25296	17	7.748	12.118	25370	9	19.886	14.314	25444	21	16.738	17.518
25149	11	16.162	6.425	25223	24	7.012	9.133	25297	17	8.146	12.428	25371	13	20.281	14.108	25445	10	18.016	17.795
25150	16	16.220	6.688	25224	20	7.464	9.890	25298*	32	9.046	12.300	25372	13	20.464	14.108	25446	8	18.053	17.776
25151	20	16.952	6.711	25225	20	8.300	9.700	25299	8	9.256	12.819	25373	8	20.531	14.738	25447	8	18.265	17.354
25152	18	19.752	6.334	25226	8	9.284	9.779	25300	15	9.349	12.025	25374	12	22.026	14.284	25448	8	18.274	17.805
25153	16	20.025	6.700	25227	14	9.700	9.612	25301*	24	9.712	12.800	25375	13	22.634	14.088	25449	10	19.456	17.164
25154	32	23.562	6.788	25228	10	11.022	9.689	25302	8	10.623	12.416	25376	20	22.862	14.833	25450	8	20.156	17.886
25155	11	24.056	6.294	25229	11	11.792	9.480	25303	9	10.864	12.010	25377	19	23.161	14.784	25451	8	20.706	17.078
25156	11	24.856	6.194	25230	9	12.118	9.292	25304	10	11.541	12.946	25378	17	23.468	14.170	25452	11	21.995	17.851
25157	19	25.284	6.251	25231	20	16.062	9.713	25305	10	12.370	12.761	25379	8	0.050	15.542	25453*	40	22.970	



25465	12	10°194	18°436	25539	10	23°040	20°088	25613	21	24°922	22°795	R.A. 8 <sup>h</sup> 28 <sup>m</sup>  Plate 448; 1915 Jan. 19.  Provisional Constants.  A            B            C -01757 +00939 -1066  D            E            F -00943 -01761 +1296  Mag.=16.3-1.09√d	25757	27	16°821	3°848
25466	12	11°042	18°800	25540	8	23°436	20°208	25614	13	0°425	23°626		25758	15	18°668	3°282
25467	11	11°046	18°277	25541	20	23°808	20°040	25615	12	0°634	23°544		25759	12	21°855	3°866
25468	14	11°866	18°226	25542	9	23°825	20°332	25616	13	1°580	23°556		25760	10	25°494	3°592
25469	8	13°750	18°696	25543	14	24°514	20°353	25617	8	4°443	23°800	25761	19	0°064	4°773	
25470	12	13°866	18°294	25544	48	25°140	20°268	25618	38	5°886	23°606	25762	19	3°700	4°214	
25471	23	14°223	18°976	25545	15	0°121	21°764	25619	14	7°950	23°614	25763	33	4°554	4°830	
25472	9	14°424	18°786	25546	11	0°496	21°422	25620	9	9°326	23°634	25764	8	7°772	4°566	
25473	14	14°774	18°138	25547	14	1°036	21°200	25621*	37	10°382	23°827	25765	19	9°044	4°164	
25474	8	15°540	18°825	25548	10	1°370	21°875	25622	8	13°657	23°073	25766	9	10°068	4°150	
25475	8	15°564	18°086	25549*	40	2°195	21°092	25623	18	14°534	23°652	25767	9	10°577	4°276	
25476	8	15°725	18°300	25550	8	2°396	21°724	25624	9	15°086	23°998	25768	8	11°100	4°996	
25477	8	16°716	18°766	25551	12	2°466	21°492	25625	8	16°720	23°714	25769	8	12°601	4°206	
25478	9	17°058	18°006	25552	13	6°782	21°296	25626	20	17°479	23°212	25770	10	14°972	4°782	
25479	20	19°422	18°905	25553	24	7°062	21°514	25627	9	18°430	23°888	25771	10	16°492	4°582	
25480	8	20°605	18°503	25554	8	7°166	21°369	25628	10	21°060	23°173	25772	14	17°253	4°016	
25481	21	21°598	18°699	25555	8	7°420	21°478	25629	8	21°394	23°740	25773*	37	17°958	4°545	
25482	21	22°056	18°500	25556	20	7°465	21°424	25630	14	1°828	24°805	25774	8	19°329	4°801	
25483	16	22°147	18°608	25557	8	7°565	21°644	25631	8	2°150	24°359	25775	23	20°484	4°158	
25484	12	22°946	18°664	25558	29	8°088	21°283	25632	8	2°215	24°326	25776	43	22°548	4°750	
25485	13	23°764	18°964	25559	17	8°100	21°334	25633	8	2°230	24°505	25777	44	22°995	4°225	
25486	8	24°110	18°308	25560*	23	9°530	21°810	25634	12	2°414	24°785	25778	14	25°505	4°228	
25487	36	25°985	18°282	25561*	20	9°590	21°812	25635	11	2°660	24°856	25779	24	25°864	4°314	
25488	8	0°045	19°074	25562	8	10°162	21°370	25636	8	2°786	24°352	25780*	44	0°688	5°726	
25489*	33	1°788	19°288	25563	17	10°295	21°954	25637	12	3°614	24°568	25781	9	0°975	5°199	
25490	23	2°209	19°314	25564	19	11°120	21°861	25638	12	5°748	24°618	25782	10	5°150	5°822	
25491	8	3°491	19°870	25565	8	11°420	21°560	25639	22	7°822	24°586	25783	8	5°334	5°924	
25492	8	3°638	19°474	25566	16	11°494	21°175	25640	10	9°409	24°002	25784*	45	5°354	5°565	
25493	9	7°120	19°227	25567	12	12°400	21°909	25641	14	9°634	24°054	25785	15	5°960	5°511	
25494	12	7°604	19°300	25568	11	12°526	21°469	25642	17	13°406	24°450	25786	9	7°174	5°588	
25495	10	8°506	19°624	25569	11	12°562	21°112	25643	18	14°882	24°048	25787	8	7°421	5°156	
25496	14	8°554	19°738	25570	24	13°832	21°705	25644	14	16°037	24°285	25788	11	8°190	5°245	
25497	10	9°259	19°354	25571	10	16°052	21°885	25645	8	17°270	24°935	25789	18	8°680	5°926	
25498	20	9°910	19°353	25572	8	16°516	21°626	25646	35	19°411	24°442	25790	16	8°980	5°812	
25499	15	10°304	19°775	25573*	40	17°864	21°664	25647	9	20°201	24°848	25791	24	10°273	5°038	
25500	8	12°109	19°756	25574	24	20°638	21°454	25648	8	20°555	24°321	25792	23	10°296	5°034	
25501	12	12°370	19°576	25575	8	21°076	21°426	25649	8	22°383	24°760	25793	16	11°450	5°297	
25502	20	13°172	19°993	25576	8	21°147	21°774	25650	8	23°104	24°298	25794	10	13°268	5°320	
25503	14	13°600	19°006	25577	10	21°349	21°788	25651	8	25°786	24°640	25795	22	13°514	5°407	
25504	20	13°715	19°881	25578*	34	23°185	21°178	25652	22	0°750	25°630	25796	21	13°753	5°852	
25505	9	13°778	19°228	25579	19	24°472	21°336	25653	13	2°389	25°804	25797	12	13°830	5°436	
25506	23	14°574	19°878	25580	9	24°545	21°546	25654	11	3°190	25°780	25798	13	14°438	5°128	
25507	20	14°733	19°706	25581	10	24°552	21°852	25655	18	3°654	25°737	25799	26	14°894	5°125	
25508	18	15°178	19°500	25582	8	2°527	22°286	25656*	33	4°849	25°219	25800	14	15°906	5°386	
25509	18	15°318	19°512	25583	32	3°246	22°335	25657	10	6°810	25°228	25801	18	16°980	5°410	
25510	10	16°576	19°954	25584	8	3°255	22°903	25658	8	11°352	25°431	25802	17	17°718	5°180	
25511	13	16°835	19°523	25585	14	3°706	22°765	25659	11	11°475	25°976	25803	13	18°320	5°968	
25512	19	21°306	19°110	25586	8	3°930	22°715	25660	8	11°846	25°980	25804	12	19°003	5°288	
25513	21	23°100	19°195	25587	13	3°935	22°835	25661	20	12°256	25°112	25805	13	19°793	5°799	
25514	9	23°440	19°852	25588	13	5°243	22°504	25662	8	14°034	25°622	25806	15	21°075	5°684	
25515	21	24°992	19°126	25589	9	5°932	22°091	25663	9	14°757	25°320	25807	16	21°654	5°624	
25516	20	0°104	20°244	25590	8	6°120	22°708	25664	15	16°147	25°271	25808	10	23°489	5°054	
25517	8	1°367	20°249	25591	8	7°348	22°953	25665	20	16°425	25°682	25809	13	25°072	5°875	
25518	8	2°764	20°618	25592	10	8°054	22°832	25666	10	17°449	25°518	25810	32	0°904	6°856	
25519	17	4°470	20°003	25593	9	8°320	22°257	25667	20	18°940	25°030	25811	10	1°399	6°358	
25520	13	4°530	20°126	25594	15	9°830	22°550	25668	13	20°694	25°306	25812	10	2°196	0°250	
25521	14	4°660	20°459	25595	9	10°030	22°819	25669	30	22°384	25°016	25813	22	2°621	6°302	
25522	9	5°484	20°714	25596	8	10°200	22°999	25670	11	22°806	25°639	25814	8	2°671	6°228	
25523	16	5°858	20°125	25597*	40	11°946	22°803	25671	13	23°072	25°786	25815	20	3°138	6°695	
25524*	41	6°133	20°838	25598	10	12°256	22°320	25672	16	24°485	25°177	25816*	40	4°126	6°620	
25525	9	6°614	20°148	25599	10	13°506	22°209					25817				



25831	23	16-685	6.406	25905	11	19-478	9-144	25979	11	1-354	13-122	26053	23	18-375	15-841	26127	26	2-450	19-182
25832	10	17-274	6.665	25906	18	20-144	9-590	25980	18	3-199	13-346	26054	12	20-945	15-990	26128	14	4-947	19-516
25833	20	17-335	6.067	25907	11	21-976	9-342	25981	14	3-812	13-140	26055	14	23-940	15-350	26129	8	6-154	19-890
25834	12	18-016	6.634	25908	13	1-882	10-668	25982	10	5-794	13-305	26056	27	25-750	15-777	26130	10	6-522	19-966
25835	17	18-110	6.595	25909	13	2-780	10-216	25983*	27	5-964	13-576	26057	12	0-346	16-894	26131	13	7-100	19-030
25836*	38	18-808	6.452	25910	20	2-808	10-702	25984	17	0-846	13-250	26058	10	3-830	16-470	26132	8	7-150	19-534
25837	18	20-440	6.796	25911	31	3-304	10-384	25985	9	7-665	13-742	26059	37	4-845	16-142	26133	8	7-468	19-320
25838	16	22-650	6.725	25912	12	3-595	10-064	25986	24	7-849	13-980	26060	20	8-440	16-238	26134	15	7-550	19-112
25839	12	25-764	6.479	25913	20	4-478	10-945	25987	9	10-859	13-991	26061	8	10-080	16-998	26135	24	10-850	19-248
25840	15	2-263	7-721	25914	10	4-926	10-978	25988	23	12-820	13-082	26062	14	10-160	16-876	26136	11	10-860	19-533
25841	30	2-574	7-823	25915*	44	4-935	10-527	25989	18	13-714	13-650	26063*	38	13-060	16-148	26137	8	12-158	19-830
25842	10	4-924	7-658	25916	12	6-148	10-870	25990	10	14-033	13-257	26064	10	13-216	16-392	26138*	27	12-184	19-612
25843	10	9-600	7-854	25917	11	6-290	10-705	25991	10	14-742	13-692	26065	10	16-083	16-228	26139	8	12-600	19-634
25844	10	10-206	7-654	25918	8	7-314	10-339	25992	8	16-608	13-630	26066	9	16-661	16-876	26140	21	13-448	19-392
25845	11	10-884	7-121	25919	20	10-995	10-605	25993	15	16-930	13-313	26067	9	18-100	16-170	26141	13	13-540	19-288
25846*	37	11-012	7-444	25920	9	13-889	10-179	25994	12	18-420	13-095	26068	23	18-556	16-800	26142	11	14-259	19-317
25847	9	11-023	7-050	25921	11	15-631	10-350	25995	8	18-980	13-472	26069	33	19-110	16-768	26143	17	16-050	19-716
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25849	17	12-616	7-460	25923	10	20-092	10-920	25997	9	20-575	13-024	26071	11	20-362	16-650	26145	14	17-209	19-167
25850	8	13-064	7-922	25924	9	25-148	10-800	25998	10	22-716	13-234	26072	18	20-855	16-949	26146	10	17-228	19-733
25851	10	15-636	7-254	25925	22	25-677	10-719	25999	22	23-496	13-132	26073	22	21-114	16-783	26147	12	17-365	19-629
25852	14	16-828	7-149	25926	18	0-876	11-204	26000*	37	23-838	13-314	26074	9	21-350	16-490	26148	13	17-678	19-465
25853	12	18-727	7-077	25927	40	1-314	11-530	26001	16	25-254	13-878	26075	8	21-404	16-093	26149	15	17-738	19-072
25854	13	21-780	7-252	25928	8	4-416	11-076	26002	10	25-839	13-515	26076	10	22-816	16-838	26150	10	17-742	19-650
25855	11	22-480	7-440	25929	12	5-004	11-150	26003	14	25-846	13-440	26077	17	22-898	16-274	26151	8	17-870	19-512
25856	12	23-737	7-367	25930	9	6-251	11-335	26004	16	0-046	14-166	26078	20	23-667	16-904	26152	8	18-512	19-482
25857	19	23-887	7-252	25931	8	8-813	11-044	26005	19	0-280	14-906	26079	9	25-714	17-476	26153	8	21-965	19-485
25858	21	0-314	8-830	25932	13	10-856	11-682	26006	19	0-579	14-856	26080	45	0-404	17-196	26154	24	24-612	19-002
25859	10	0-799	8-626	25933	12	15-451	11-978	26007	17	0-880	14-238	26081*	40	4-098	17-642	26155	24	1-276	20-104
25860	15	1-077	8-654	25934	13	17-499	11-280	26008	16	1-413	14-054	26082	17	5-162	17-804	26156	16	1-984	20-412
25861	13	4-966	8-706	25935	10	19-527	11-074	26009	21	4-060	14-768	26083	13	13-350	17-550	26157*	56	2-603	20-320
25862	13	5-047	8-180	25936	13	20-197	11-136	26010	9	4-576	14-274	26084	19	15-144	17-120	26158	8	2-854	20-021
25863	14	5-345	8-835	25937	14	20-440	11-910	26011	15	5-188	14-126	26085*	44	15-699	17-895	26159	17	5-755	20-260
25864	17	6-445	8-254	25938	17	21-094	11-262	26012	21	6-196	14-288	26086*	30	16-542	17-431	26160	11	6-443	20-630
25865*	26	8-314	8-934	25939	20	21-117	11-440	26013*	42	7-900	14-349	26087	10	16-720	17-655	26161	17	8-210	20-785
25866*	49	9-176	8-908	25940	8	21-250	11-691	26014	10	8-012	14-030	26088	19	17-578	17-204	26162	13	10-832	20-594
25867	15	11-860	8-282	25941	23	21-531	11-405	26015	15	8-228	14-702	26089*	40	17-882	71-225	26163	12	12-142	20-328
25868	20	12-254	8-219	25942	16	22-148	11-185	26016	8	8-914	14-870	26090	8	18-550	17-321	26164	20	14-502	20-330
25869	9	14-357	8-273	25943	17	0-254	12-274	26017	21	10-048	14-137	26091	16	18-864	17-575	26165	21	15-522	20-566
25870	22	14-384	8-102	25944	20	1-094	12-504	26018	8	10-390	14-940	26092	36	18-896	17-892	26166	8	15-546	20-811
25871	20	14-400	8-088	25945	16	1-768	12-624	26019	14	11-247	14-776	26093	12	20-124	17-594	26167	8	15-703	20-150
25872	20	14-524	8-052	25946	9	5-030	12-766	26020	10	13-338	14-719	26094	10	20-304	17-840	26168	11	16-498	20-442
25873*	28	14-938	8-700	25947	21	8-407	12-280	26021	13	13-526	14-164	26095	19	20-812	17-914	26169	15	16-650	20-682
25874	16	15-661	8-235	25948	11	9-400	12-987	26022	21	14-648	14-714	26096	8	21-408	17-089	26170	16	16-800	20-296
25875*	30	16-660	8-386	25949	15	10-152	12-618	26023	10	14-660	14-231	26097	11	24-080	17-760	26171	20	17-670	20-550
25876	13	16-918	8-787	25950	21	10-248	12-257	26024*	28	14-904	14-350	26098	9	25-684	17-347	26172	20	17-810	20-872
25877	17	20-058	8-518	25951	12	10-882	12-800	26025	28	15-912	14-703	26099	13	0-400	18-740	26173	8	17-905	20-138
25878	19	20-956	8-028	25952	10	11-126	12-357	26026	19	16-314	14-980	26100	14	1-562	18-370	26174	12	18-767	20-660
25879	18	21-996	8-665	25953	13	11-197	12-190	26027	8	16-577	14-733	26101*	40	3-434	18-327	26175	18	19-484	20-357
25880	14	23-356	8-920	25954	14	11-972	12-820	26028	17	17-304	14-734	26102	8	4-580	18-474	26176	8	20-426	20-243
25881	10	24-243	8-511	25955	14	13-054	12-259	26029	13	19-360	14-398	26103	13	5-422	18-120	26177	13	21-324	20-690
25882	11	25-098	8-400	25956	10	13-953	12-757	26030	10	20-561	14-845	26104	19	5-772	18-780	26178	14	21-563	20-930
25883	20	1-554	9-226	25957	9	14-180	12-228	26031	8	21-962	14-385	26105	19	6-933	18-112	26179*	44	24-048	20-670
25884	15	2-320	9-749	25958	20	14-637	12-326	26032	11	22-660	14-500	26106	11	7-214	18-135	26180	12	0-056	21-014
25885	8	3-166	9-967	25959	11	14-893	12-408	26033	11	22-853	14-837	26107	20	8-622	18-680	26181	37	0-662	21-249
25886	21	3-462	9-701	25960	21	16-166	12-172	26034	20	24-036	14-509	26108	9	9-385	18-478	26182	18	1-952	21-398
25887	9	3-668	9-269	25961	12	16-378	12-495	26035	13	25-153	14-897	26109	13	13-834	18-219	26183	11	2-030	21-605
25888	10	5-186	9-972	25962	9	16-630	12-460	26036	8	0-312	15-159	26110	18	14-284	18-690	26184	11	2-038	21-910
25889	12	5-753	9-060	25963	8	16-967	12-676	26037	24	0-356	15-384	26111	12	14-457	18-136	26185	9	3-722	21-910
25890	10	6-802	9-534	25964	8	17-641	12-152	26038	41	0-550	15-511	26112	11	15-334	18-836	26186	9	4-178	21-834
25891	14	7-707	9-936	25965	9	19-562	12-316	26039	22	1-445	15-606	26113	8	15-643	18-154	26187	26	5-440	21-752
25892	13	10-177	9-156	25966	10	19-657	12-784	26040*	51	2-018	15-187	26114	8	16-113	18-370	26188	16	6-260	21-621
25893	8	11-747	9-353	25967	8	19-740													



26201	15	10.926	21.832	26275	27	20.768	24.768	26368	8	7.952	1.190	26442	19	9.488	6.969	26516*	36	8.432	12.326
26202	15	12.228	21.664	26276	42	21.630	24.698	26369*	41	8.168	1.531	26443	8	14.244	6.873	26517	19	9.532	12.840
26203	23	12.870	21.206	26277	8	22.684	24.120	26370	28	8.434	1.745	26444	20	16.087	6.442	26518	8	9.715	12.840
26204	12	13.452	21.205	26278	9	24.190	24.816	26371	18	10.418	1.572	26445	21	25.535	6.354	26519	16	10.812	12.916
26205	18	13.913	21.370	26279	15	0.335	25.707	26372	12	10.539	1.096	26446	24	25.934	6.716	26520*	75	10.864	12.246
26206	18	14.262	21.036	26280	26	0.602	25.855	26373	8	11.547	1.026	26447	9	0.085	7.054	26521	8	11.310	12.427
26207	20	15.343	21.200	26281	10	1.971	25.589	26374	18	12.338	1.474	26448	8	1.170	7.682	26522	10	11.476	12.704
26208	11	15.920	21.552	26282	24	2.005	25.240	26375	9	14.392	1.742	26449	13	1.324	7.562	26523	12	11.850	12.109
26209	23	16.790	21.825	26283	24	6.428	25.702	26376*	44	19.058	1.615	26450	13	5.966	7.322	26524	16	12.113	12.935
26210	8	17.253	21.138	26284	12	8.388	25.280	26377	8	19.629	1.755	26451	12	10.748	7.676	26525	8	12.609	12.002
26211	18	18.888	21.678	26285	60	9.326	25.730	26378	21	20.762	1.954	26452	15	14.263	7.768	26526	10	12.978	12.290
26212	8	19.062	21.524	26286	28	9.360	25.950	26379	8	24.404	1.401	26453	23	14.592	7.346	26527	8	13.025	12.256
26213	17	19.568	21.990	26287	15	11.244	25.170	26380	19	25.668	1.241	26454	8	15.665	7.846	26528*	72	13.718	12.662
26214	13	19.657	21.480	26288	10	11.332	25.068	26381	8	0.874	2.712	26455	10	19.774	7.006	26529	15	14.290	12.638
26215	21	22.040	21.554	26289*	64	11.365	25.170	26382	16	9.741	2.074	26456	38	20.475	7.366	26530	33	14.566	12.724
26216	19	22.514	21.332	26290	22	12.940	25.423	26383	8	10.697	2.300	26457	8	22.324	7.440	26531	25	14.925	12.324
26217	17	25.046	21.640	26291	9	13.379	25.352	26384	11	11.522	2.408	26458	12	22.480	7.757	26532	27	16.506	12.830
26218	29	2.417	22.850	26292	41	14.846	25.715	26385	8	12.708	2.443	26459	8	22.576	7.932	26533	8	18.336	12.494
26219	22	4.098	22.549	26293	8	15.874	25.653	26386	10	17.146	2.887	26460*	45	22.764	7.874	26534	13	19.943	12.876
26220	12	4.274	22.571	26294	49	16.735	25.677	26387	8	17.334	2.032	26461	8	1.802	8.178	26535	8	21.144	12.502
26221	11	5.420	22.878	26295	11	17.342	25.565	26388	10	17.610	2.220	26462	14	2.550	8.698	26536	18	21.486	12.089
26222	12	7.837	22.444	26296	19	18.168	25.855	26389	10	23.574	2.797	26463	30	3.612	8.150	26537*	33	22.688	12.875
26223	8	10.877	22.462	26297	22	18.320	25.496	26390	20	24.198	2.249	26464*	48	6.664	8.848	26538	15	1.002	13.447
26224	8	11.792	22.743	26298	36	18.898	25.005	26391	9	2.888	3.880	26465	11	7.031	8.976	26539*	47	1.346	13.626
26225	11	12.104	22.790	26299	14	19.225	25.497	26392	9	5.048	3.530	26466	40	8.310	8.888	26540	34	2.972	13.038
26226	9	16.275	22.680	26300	24	19.282	25.657	26393	12	5.306	3.312	26467	8	10.674	8.760	26541	8	3.356	13.801
26227	10	16.874	22.326	26301	11	19.565	25.604	26394	9	6.856	3.484	26468	10	12.142	8.583	26542	15	3.359	13.727
26228	9	17.332	22.727	26302	24	21.036	25.886	26395	14	7.534	3.777	26469	8	12.520	8.680	26543	12	5.576	13.896
26229	12	18.265	22.964	26303	24	21.810	25.501	26396	11	8.400	3.815	26470	26	12.968	8.153	26544	8	6.125	13.970
26230	19	18.404	22.490	26304	10	22.002	25.862	26397	29	12.446	3.502	26471	10	15.400	8.885	26545	12	7.998	13.314
26231	14	20.050	22.644	26305	8	23.278	25.878	26398	31	13.844	3.223	26472*	62	21.886	8.724	26546*	36	9.437	13.628
26232	28	24.020	22.765	26306	13	25.083	25.280	26399	8	16.497	3.208	26473	13	22.343	8.952	26547	10	10.151	13.744
26233	11	24.160	22.377					26400	8	16.730	3.150	26474	23	22.664	8.370	26548	11	10.724	13.658
26234	14	4.906	23.830					26401	10	20.605	3.180	26475	8	0.814	9.236	26549	18	10.914	13.727
26235	9	4.950	23.859					26402*	36	21.346	3.473	26476	8	3.916	9.754	26550	8	12.661	13.202
26236	18	6.902	23.036					26403	21	22.302	3.408	26477	29	5.824	9.665	26551*	68	17.112	13.670
26237	17	7.862	23.458					26404	9	24.664	3.313	26478	29	11.254	9.789	26552	38	18.604	13.415
26238	10	8.810	23.088					26405	13	25.079	3.933	26479	20	11.822	9.675	26553	16	19.810	13.072
26239	15	8.976	23.812					26406	40	0.392	4.548	26480	8	15.185	9.679	26554	11	20.844	13.791
26240	8	10.502	23.732					26407	8	2.910	4.520	26481	8	15.976	9.592	26555	24	23.914	13.314
26241	14	11.733	23.601					26408	25	3.265	4.600	26482	10	16.525	9.708	26556	8	25.904	13.455
26242	25	11.814	23.231					26409	24	4.284	4.900	26483	8	21.230	9.872	26557	9	0.185	14.828
26243	17	12.313	23.380					26410	29	4.587	4.786	26484	8	4.450	10.144	26558	24	1.560	14.818
26244	23	12.388	23.236					26411	20	4.690	4.522	26485	11	6.662	10.750	26559	15	2.772	14.172
26245	9	12.462	23.200					26412	8	5.272	4.662	26486	17	12.347	10.636	26560*	55	3.540	14.725
26246	36	13.099	23.470					26413	15	5.284	4.134	26487	15	12.970	10.222	26561	8	3.855	14.082
26247	16	15.324	23.997					26414	12	10.944	4.994	26488	16	14.948	10.658	26562	8	4.437	14.540
26248	11	15.667	23.495					26415	34	12.050	4.227	26489*	60	19.728	10.885	26563	32	4.738	14.127
26249	14	17.522	23.868					26416	9	12.335	4.770	26490	8	19.888	10.222	26564	19	5.398	14.850
26250	21	17.603	23.428					26417	8	12.728	4.384	26491	13	20.790	10.592	26565	10	6.265	14.926
26251	8	18.359	23.598					26418*	40	15.588	4.469	26492	9	20.836	10.446	26566	8	8.326	14.183
26252	20	21.730	23.339					26419	8	16.114	4.910	26493	17	21.124	10.864	26567	8	10.243	14.887
26253	10	24.374	23.900					26420	8	16.336	4.304	26494	23	3.156	11.008	26568	23	10.474	14.144
26254	12	0.618	24.366					26421	21	16.530	4.557	26495*	58	4.038	11.456	26569	23	12.052	14.630
26255	11	3.304	24.693					26422	12	17.484	4.615	26496	8	7.340	11.422	26570*	39	12.356	14.071
26256	21	4.625	24.420					26423	16	22.568	4.090	26497	14	8.089	11.680	26571	13	14.646	14.000
26257*	38	5.020	24.056					26424	10	22.620	4.534	26498*	38	11.206	11.722	26572	14	14.646	14.981
26258*	60	6.136	24.795					26425	9	24.364	4.143	26499	8	12.265	11.388	26573	10	15.919	14.126
26259	34	6.138	24.864					26426	10	0.900	5.371	26500	9	13.957	11.926	26574	27	16.685	14.206
26260	34	7.041	24.550					26427	9	3.741	5.626	26501	13	15.902	11.790	26575	18	17.194	14.528
26261	32	8.086	24.191					26428	20	4.654	5.368	26502	40	15.981	11.626	26576	41	17.495	14.800
26262	10	8.460	24.671					26429	8	5.656	5.752	26503	11	17.672	11.140	26577	40	19.022	14.762
26263	17	10.014	24.460					26430	12	8.262	5.654	26504	8	17.980	11.686	26578	15	19.116	14.719
26264	18	10.375	24.477					26431	9	12.740	5.622	26505	8	19.116	11.853	26579	10	20.658	14.544
26265	21	11.258	24.744					26432	8	14.777	5.793	26506*	40	21.014	11.250	26580	31	22.340	14.654
26266	25	11.260	24.761					26433	16	18.688	5.550	26507	10	25.014	11.510	26581	28	24.822	14.837
26267	21	12.770	24.029					26434	8	19.573	5.380								



26590	13	8.244	15.688	26664	13	24.546	18.326	26738	23	1.653	23.075	26803	30	16.548	0.094	26877	15	12.052	7.183
26591	17	9.581	15.729	26665	14	24.726	18.718	26739	8	4.428	23.578	26804	30	2.996	1.742	26878	15	12.281	7.676
26592	9	10.645	15.331	26666	12	25.148	18.824	26740	13	6.124	23.956	26805	16	2.996	1.176	26879	17	13.994	7.886
26593	10	19.361	15.456	26667	19	25.786	18.733	26741	30	7.036	23.932	26806	15	4.315	1.831	26880	12	16.482	7.818
26594	9	19.450	15.967	26668	20	2.191	19.304	26742	18	7.560	23.686	26807	15	6.562	1.781	26881	16	16.593	7.223
26595	34	21.298	15.513	26669*	44	2.716	19.155	26743	8	8.107	23.528	26808	22	14.012	1.123	26882	33	18.124	7.942
26596	8	25.857	15.494	26670	18	5.026	19.602	26744	12	8.170	23.398	26809	34	1.527	2.757	26883	16	18.548	7.066
26597	11	0.445	16.596	26671	14	8.766	19.914	26745	9	9.677	23.906	26810	32	8.814	2.268	26884	16	20.570	7.364
26598	8	3.264	16.765	26672	31	9.076	19.266	26746*	80	9.972	23.665	26811	12	10.354	2.144	26885	22	20.931	7.256
26599	40	3.293	16.064	26673	8	9.886	19.524	26747	10	10.274	23.242	26812	14	14.234	2.472	26886	22	20.936	7.868
26600	8	3.645	16.458	26674	8	11.038	19.635	26748	8	11.141	23.134	26813	19	14.296	2.476	26887*	48	22.334	7.553
26601	11	4.924	16.786	26675	8	11.664	19.823	26749	8	11.294	23.572	26814	14	18.840	2.826	26888	24	22.775	7.494
26602	8	5.206	16.863	26676	13	13.704	19.534	26750*	54	11.794	23.376	26815	10	20.470	2.626	26889	34	23.156	7.001
26603	32	6.493	16.825	26677	15	13.834	19.508	26751	11	12.720	23.935	26816	26	25.947	2.614	26890	36	24.666	7.995
26604	20	6.706	16.376	26678	8	19.512	19.207	26752	19	14.000	23.182	26817	24	0.904	3.310	26891	21	25.906	7.263
26605	26	6.908	16.129	26679*	43	20.643	19.352	26753	14	18.922	23.804	26818	13	1.761	3.064	26892	32	0.027	8.886
26606	11	10.507	16.522	26680	20	21.686	19.898	26754	25	4.218	24.571	26819	22	2.000	3.818	26893	48	0.125	8.392
26607	18	10.582	16.309	26681	23	22.602	19.640	26755	12	5.086	24.360	26820	30	5.658	3.154	26894	38	4.348	8.062
26608	8	14.862	16.956	26682	8	23.124	18.847	26756	16	6.470	24.550	26821	28	6.184	3.836	26895	17	5.440	8.883
26609	12	15.350	16.024	26683	8	23.144	19.948	26757	23	8.585	24.836	26822	16	10.994	3.828	26896	22	5.642	8.146
26610	8	18.298	16.682	26684	8	25.112	19.494	26758	21	8.975	24.094	26823	36	11.351	3.748	26897	13	6.776	8.923
26611	36	20.054	16.690	26685	8	25.831	19.982	26759	8	11.236	24.322	26824	29	11.900	3.836	26898	9	7.499	8.875
26612	36	21.229	16.126	26686*	55	1.646	20.976	26760*	40	13.154	24.144	26825	17	12.784	3.652	26899	13	9.423	8.614
26613*	46	21.477	16.256	26687	38	8.590	20.342	26761	19	13.597	24.108	26826	14	13.356	3.658	26900	18	12.859	8.066
26614	17	21.856	16.057	26688	9	10.050	20.334	26762*	60	16.310	24.265	26827	26	13.878	3.874	26901	19	13.736	8.185
26615	8	22.288	16.174	26689	8	12.198	20.855	26763	16	16.378	24.427	26828	26	15.094	3.912	26902	20	15.784	8.835
26616*	31	22.946	16.600	26690	39	13.867	20.732	26764	8	20.554	24.530	26829	18	16.140	3.198	26903	15	17.444	8.667
26617	20	24.884	16.046	26691	13	17.344	20.324	26765	10	23.416	24.217	26830	36	22.994	3.044	26904	13	18.704	8.364
26618	18	24.992	16.431	26692	10	17.504	20.786	26766	9	2.746	25.570	26831	25	23.385	3.522	26905	8	19.027	8.792
26619	11	25.194	16.564	26693	40	21.756	20.922	26767	40	4.501	25.982	26832	19	23.608	3.388	26906	14	20.494	8.627
26620	8	0.368	17.164	26694	8	22.654	20.640	26768	8	4.958	25.954	26833	14	1.706	4.649	26907	25	20.975	8.506
26621	13	1.222	17.218	26695*	49	23.706	20.406	26769*	51	5.588	25.404	26834	20	2.420	4.434	26908	23	20.984	8.284
26622	8	4.624	17.710	26696	10	24.134	20.254	26770	8	6.225	25.256	26835	15	4.200	4.598	26909*	45	21.666	8.284
26623	20	6.327	17.286	26697	11	25.574	20.824	26771	8	7.056	25.112	26836	9	7.180	4.996	26910	17	23.078	8.020
26624	24	6.727	17.906	26698	12	25.672	20.135	26772	60	7.664	25.758	26837*	36	11.983	4.986	26911	24	24.292	8.024
26625	19	7.170	17.754	26699	10	0.125	21.660	26773	8	8.259	25.626	26838*	18	12.005	4.986	26912	80	25.366	8.458
26626	8	7.866	17.126	26700	14	2.662	21.936	26774	31	8.379	25.470	26839	15	16.527	4.479	26913	11	3.642	9.085
26627	18	9.034	17.737	26701	23	4.532	21.956	26775	28	10.185	25.784	26840	17	17.002	4.325	26914	30	7.858	9.684
26628	8	10.361	17.237	26702*	60	5.326	21.546	26776	23	10.684	25.378	26841	39	17.533	4.836	26915	25	7.906	9.784
26629*	40	11.142	17.042	26703	8	5.500	21.206	26777	65	10.825	25.739	26842	19	18.686	4.994	26916*	80	9.214	9.466
26630	20	12.500	17.641	26704	9	7.692	21.646	26778	14	11.098	25.017	26843	36	18.908	4.816	26917*	40	10.157	9.417
26631	8	15.103	17.487	26705	18	10.534	21.864	26779	8	12.668	25.460	26844	17	19.145	4.786	26918	19	10.706	9.184
26632	9	15.161	17.696	26706	8	11.222	21.158	26780	20	13.874	25.482	26845	15	20.102	4.455	26919	21	12.286	9.584
26633	19	17.394	17.291	26707	8	12.074	21.202	26781	8	15.599	25.211	26846	12	20.425	4.294	26920*	31	14.370	9.576
26634	8	17.709	17.020	26708	9	12.550	21.287	26782	8	16.593	25.602	26847	19	22.066	4.403	26921	17	14.736	9.014
26635	8	17.939	17.432	26709	8	13.601	21.728	26783	22	18.438	25.245	26848	20	4.447	5.283	26922	19	15.741	9.708
26636	30	18.734	17.558	26710	32	14.512	21.693	26784	12	20.092	25.044	26849	34	6.682	5.232	26923	31	17.094	9.938
26637	33	18.751	17.204	26711	8	16.513	21.530	26785	8	21.542	25.487	26850	11	7.285	5.698	26924	16	17.244	9.916
26638	19	18.964	17.991	26712	21	16.989	21.334	26786	8	21.768	25.078	26851	9	9.035	5.281	26925	12	20.954	9.632
26639	11	19.606	17.159	26713	8	17.482	21.902	26787	8	24.765	25.339	26852	13	10.056	5.066	26926	8	22.764	9.222
26640	8	20.235	17.857	26714	12	20.277	21.053					26853	13	12.529	5.363	26927	36	23.290	9.142
26641	8	20.735	17.738	26715	9	21.661	21.484					26854	12	13.093	5.956	26928	11	23.550	9.220
26642	8	21.948	17.328	26716	14	22.004	21.254					26855	16	15.434	5.522	26929	11	1.234	10.142
26643	11	1.344	18.932	26717	18	23.696	21.474					26856	20	17.664	5.122	26930	34	4.293	10.785
26644	8	4.553	18.590	26718	31	25.447	21.552					26857	20	18.687	5.976	26931	20	4.449	10.314
26645	8	6.560	18.632	26719	10	1.786	22.685					26858	24	23.157	5.089	26932	12	6.310	10.156
26646	8	7.173	18.525	26720	8	7.206	22.872					26859	31	25.684	5.718	26933	11	8.092	10.343
26647	11	7.282	18.028	26721	13	8.306	22.570					26860	21	0.188	6.025	26934*	36	8.236	10.020
26648	8	7.922	18.177	26722	8	10.165	22.480					26861	23	2.106	6.346	26935	11	8.518	10.859
26649	23	9.454	18.782	26723	24	11.126	22.090					26862	26	2.890	6.854	26936	14	9.375	10.084
26650	12	10.954	18.955	26724	8	13.124	22.176					26863	28	3.652	6.222	26937	8	9.794	10.652
26651	11	11.200	18.074	26725*	57	13.475	22.208					26864	24	4.656	6.856	26938	20	10.635	10.156
26652	35	12.040	18.612	26726	21	14.040	22.862					26865	17	4.918	6.131	26939	13	11.806	10.935
26653	8	12.907	18.578	26727	10	14.130	22.583					26866	30	15.784	6.806	26940	20	12.569	10.296
26654	24	13.358	18.996	26728	10														



26951	21	12.883	11.644	27025	9	7.692	15.331	27099	9	1.744	19.158	27173	22	7.434	24.393	27235	31	13.780	4.454
26952	18	13.046	11.726	27026	12	9.546	15.312	27100	17	2.161	19.223	27174	24	8.592	24.586	27236	13	14.222	4.244
26953	15	14.857	11.752	27027	15	9.960	15.698	27101	17	2.584	19.323	27175*	40	19.036	24.985	27237	9	14.901	4.494
26954*	36	14.906	11.026	27028	15	11.776	15.996	27102	21	3.219	19.228	27176*	31	19.743	24.641	27238	16	18.216	4.018
26955*	38	14.925	11.007	27029	15	13.036	15.750	27103	18	4.120	19.368	27177	23	21.303	24.138	27239	10	18.816	4.840
26956*	38	16.674	11.554	27030	18	19.098	15.102	27104	16	7.936	19.051	27178*	40	23.837	24.534	27240*	38	21.352	4.886
26957	26	19.288	11.148	27031*	40	21.900	15.858	27105	14	8.708	19.312	27179*	38	24.964	24.804	27241	13	0.480	5.170
26958	36	21.754	11.777	27032	10	22.651	15.928	27106	15	11.394	19.801	27180	15	25.838	24.628	27242*	27	3.016	5.754
26959	28	22.260	11.118	27033	9	24.115	15.330	27107	21	12.426	19.928	27181	15	2.244	25.836	27243	15	6.125	5.372
26960	24	22.902	11.395	27034	19	25.075	15.314	27108	17	16.466	19.558	27182	16	3.551	24.344	27244	14	7.117	5.542
26961	9	24.180	11.638	27035	9	0.971	16.035	27109*	38	17.666	19.074	27183	14	5.338	25.680	27245	9	7.579	5.227
26962	26	25.836	11.445	27036	22	2.298	16.546	27110	16	19.800	19.764	27184	29	6.530	25.730	27246	9	10.882	5.756
26963	21	2.400	12.010	27037	24	2.408	16.934	27111	31	21.878	19.841	27185	12	6.960	25.748	27247*	33	11.028	5.860
26964	20	2.584	12.406	27038	11	2.819	16.768	27112	10	22.304	19.296	27186	36	18.022	25.625	27248*	68	12.468	5.012
26965	14	2.647	12.486	27039	19	5.388	16.897	27113	30	24.478	19.149	27187	36	21.860	25.746	27249*	56	18.694	5.366
26966	17	4.018	12.274	27040	8	7.371	16.094	27114	24	0.044	20.156					27250	27	1.950	6.604
26967*	42	5.642	12.391	27041	32	7.432	16.132	27115	18	0.584	20.463					27251	33	2.926	6.386
26968	8	5.982	12.341	27042	10	9.154	16.864	27116*	50	1.144	20.916					27252	13	4.690	6.428
26969	15	6.850	12.007	27043	23	10.422	16.944	27117	22	1.576	20.763					27253	8	6.472	6.862
26970	18	9.640	12.468	27044	16	11.480	16.640	27118	21	3.116	20.634					27254	16	10.832	6.582
26971	15	9.830	12.664	27045	12	15.274	16.419	27119	16	3.274	20.475					27255*	35	16.696	6.320
26972	9	10.892	12.720	27046	9	15.464	16.274	27120	12	4.145	20.044					27256	27	16.966	6.770
26973	15	12.036	12.634	27047	8	17.159	16.293	27121	14	5.178	20.705					27257	8	23.175	6.110
26974	11	12.590	12.918	27048	8	17.576	16.086	27122	16	7.571	20.879					27258	17	0.133	7.580
26975	14	13.426	12.852	27049	14	18.254	16.937	27123*	38	7.687	20.043					27259	18	3.263	7.298
26976	15	13.884	12.070	27050	18	19.084	16.496	27124	31	7.878	20.038					27260	8	3.490	7.540
26977	19	16.057	12.894	27051	18	19.659	16.156	27125	32	8.256	20.580					27261	17	7.027	7.989
26978	14	16.726	12.853	27052	19	23.134	16.626	27126	19	8.655	20.508					27262	14	7.579	7.552
26979	13	18.289	12.694	27053	20	23.626	16.294	27127	36	12.778	20.608					27263	8	8.267	7.368
26980	12	19.142	12.607	27054	36	0.365	17.116	27128	27	13.838	20.652					27264	17	9.671	7.372
26981	11	24.685	12.409	27055	12	2.615	17.065	27129*	38	14.536	20.464					27265	8	13.372	7.022
26982	32	0.080	13.392	27056	12	3.118	17.783	27130	15	14.728	20.938					27266	19	23.147	7.600
26983	12	0.462	13.186	27057	12	3.616	17.906	27131	20	17.216	20.893					27267	8	23.765	7.881
26984	24	0.594	13.828	27058	12	3.696	17.218	27132	15	0.105	21.151					27268	11	0.448	8.104
26985	11	3.301	13.951	27059	19	4.232	17.982	27133	32	1.146	21.982					27269	28	0.522	8.081
26986	20	3.444	13.886	27060	15	5.857	17.124	27134	10	1.230	21.444					27270	16	1.664	8.487
26987	19	4.264	13.768	27061	13	6.313	17.694	27135	18	3.022	21.322					27271	33	2.035	8.050
26988	21	5.758	13.295	27062	10	6.941	17.776	27136	9	8.190	21.043					27272*	70	2.724	8.102
26989	8	5.922	13.188	27063	11	7.888	17.522	27137	15	8.273	21.206					27273	8	2.859	8.052
26990	23	6.969	13.126	27064	8	8.776	17.114	27138	36	11.824	21.404					27274	29	3.390	8.654
26991	10	8.143	13.636	27065	9	10.232	17.914	27139*	56	12.616	21.088					27275	19	5.865	8.112
26992	12	11.730	13.686	27066	34	10.374	17.532	27140	11	13.939	21.505					27276	8	9.764	8.442
26993	12	12.158	13.949	27067	16	10.966	17.457	27141	23	15.287	21.532					27277	27	11.246	8.262
26994	34	14.360	13.221	27068	20	12.686	17.394	27142	20	16.050	21.214					27278*	43	13.185	8.755
26995	13	15.044	13.316	27069	8	13.096	17.000	27143	12	19.732	21.605					27279	9	15.258	8.898
26996	11	16.825	13.828	27070	8	13.222	17.102	27144	14	24.272	21.058					27280	11	17.972	8.800
26997	14	19.627	13.502	27071	11	14.288	17.530	27145	36	2.137	22.820					27281	8	21.239	8.192
26998	13	23.076	13.555	27072	19	15.729	17.892	27146	36	2.900	22.050					27282	8	24.368	8.542
26999	21	23.394	13.600	27073	18	19.847	17.584	27147	12	4.466	22.083					27283	8	24.550	8.942
27000	24	25.354	13.587	27074	10	20.026	17.975	27148	35	4.739	22.612					27284	11	25.999	8.584
27001	9	4.211	14.023	27075	16	20.216	17.904	27149	19	5.714	22.788					27285	28	0.674	9.219
27002	11	4.735	14.387	27076	16	23.302	17.494	27150	26	11.440	22.218					27286	8	0.936	9.294
27003	13	7.160	14.780	27077	14	0.330	18.413	27151	15	14.414	22.986					27287	10	8.353	9.766
27004	26	7.433	14.860	27078	16	1.978	18.831	27152*	38	16.080	22.206					27288*	42	9.598	9.237
27005	10	8.644	14.107	27079	11	2.834	18.536	27153*	38	17.434	22.494					27289	15	12.380	9.920
27006	15	9.004	14.925	27080	10	4.074	18.816	27154	13	18.248	22.801					27290	14	13.159	9.466
27007	11	10.649	14.126	27081	15	4.160	18.144	27155	8	20.507	22.671					27291	20	13.930	9.388
27008	36	10.806	14.529	27082*	54	4.654	18.664	27156	12	24.692	22.136					27292	25	14.220	9.751
27009	12	11.906	14.576	27083	24	4.876	18.244	27157	20	0.280	23.328					27293	14	16.751	9.805
27010	22	11.986	14.240	27084	21	5.721	18.679	27158	21	7.466	23.446					27294	12	16.906	9.370
27011	16	12.675	14.216	27085	11	6.338	18.164	27159	17	8.444	23.092					27295	8	17.163	9.163
27012	10	14.372	14.914	27086	11	7.302	18.182	27160	13	12.158	23.047					27296	24	20.600	9.733
27013	13	16.536	14.300	27087	14	8.004	18.222	27161	11	13.746	23.308					27297	8	22.063	9.770
27014*	36	16.995	14.272	27088	20	10.146	18.809	27162	9	13.926	23.942					27298*	52	24.749	9.063
27015	16	20.180	14.424	27089	15	10.266	18.748	27163	11	14.809	23.412					27299	26	0.726	10.703
27016	10	20.677	14.946	27090	11	12.034	18.244	27164	12	15.598	23.704					27300	8	5.651	10.832
27017	8	21.814	14.771	27091	22	12.226	18.342	27165*	42	16.070	23.096					27301	20	11.986	10.657
27018	14	22.425	14.486	27092	25	13.416	18.937	27166	34	19.549	23.433					27302	23	18.075	10.320
27019	17	23.368	14.349	27093	11	15.032	18.754	2716											



27309	9	2.768	11.451	27383	9	3.338	17.032	27457	10	14.354	25.470	27546	12	24.676	5.508	27620	20	5.415	14.366
27310	12	3.254	11.482	27384	13	4.276	17.610	27458	8	18.102	25.230	27547	80	25.165	5.045	27621*	28	10.376	14.708
27311*	37	4.046	11.342	27385	8	4.434	17.794	27459	8	18.366	25.496	27548	8	25.428	5.626	27622	19	19.855	14.576
27312*	52	4.650	11.209	27386	14	6.195	17.301	27460	8	22.930	25.516	27549	15	6.486	6.335	27623	15	0.833	15.616
27313	11	4.763	11.319	27387	9	6.330	17.278					27550	10	9.072	6.425	27624	14	1.423	15.814
27314	27	5.540	11.510	27388	18	10.070	17.450					27551	25	10.952	6.716	27625*	26	8.517	15.812
27315	11	6.526	11.516	27389*	32	19.728	17.296					27552*	52	18.307	6.478	27626*	48	8.573	15.896
27316	17	8.049	11.813	27390	8	22.569	17.030					27553*	55	23.300	6.646	27627	22	17.115	15.893
27317	14	16.239	11.616	27391	11	0.987	18.448					27554	16	0.450	7.605	27628	12	1.802	16.857
27318	31	24.163	11.516	27392	10	2.140	18.252					27555	9	13.262	7.584	27629	26	4.620	16.894
27319	18	24.869	11.765	27393	10	2.514	18.184					27556	10	16.032	7.108	27630	23	6.381	16.912
27320	8	1.845	12.288	27394*	37	3.284	18.830					27557	11	20.376	7.367	27631	16	8.276	16.467
27321	8	2.118	12.464	27395	10	6.187	18.038					27558	14	1.858	8.935	27632*	36	11.512	16.224
27322	8	3.534	12.994	27396	8	6.894	18.020					27559	21	3.308	8.572	27633	20	11.824	16.242
27323	24	3.746	12.292	27397	19	7.124	18.886					27560	27	3.832	8.166	27634*	39	17.294	16.877
27324*	67	4.286	12.880	27398	11	9.514	18.362					27561	16	6.507	8.924	27635	15	17.401	16.856
27325	20	4.814	12.948	27399	13	9.788	18.494					27562	24	16.506	8.598	27636	20	18.164	16.214
27326	13	4.915	12.376	27400	11	11.106	18.608					27563*	46	17.764	8.828	27637	27	24.546	16.248
27327	10	12.073	12.722	27401	12	16.080	18.270					27564	16	19.684	8.897	27638	40	25.208	16.083
27328	14	12.148	12.860	27402	18	2.018	19.208					27565	16	23.072	8.114	27639	16	5.210	17.244
27329	10	13.195	12.888	27403	14	5.024	19.066					27566*	52	2.055	9.055	27640	13	7.510	17.846
27330	17	13.270	12.739	27404	27	6.248	19.834					27567	18	3.434	9.194	27641*	26	15.818	17.354
27331	9	15.150	12.294	27405	8	10.813	19.086					27568*	32	5.954	9.204	27642	18	17.634	17.216
27332	11	15.932	12.831	27406	21	13.018	19.778					27569	14	6.770	9.306	27643	19	17.806	17.696
27333*	42	16.282	12.061	27407	8	15.835	19.436					27570	14	9.870	9.966	27644	10	20.909	17.320
27334*	52	18.355	12.511	27408	10	17.309	19.404					27571	12	14.861	9.081	27645	15	21.038	17.426
27335	37	19.474	12.662	27409	10	18.404	19.228					27572*	48	17.267	9.622	27646	17	21.160	17.166
27336	15	0.844	13.674	27410	21	25.488	19.988					27573	27	18.148	9.434	27647	34	22.510	17.740
27337	20	2.810	13.634	27411	11	4.380	20.280					27574	38	24.417	9.115	27648*	35	23.198	17.917
27338	19	4.885	13.012	27412	24	6.830	20.230					27575	20	25.982	9.185	27649	17	23.502	17.324
27339	9	10.119	13.756	27413	17	8.381	20.794					27576	13	1.151	10.554	27650	21	3.722	18.092
27340	8	12.885	13.360	27414	10	11.677	20.642					27577	13	4.504	10.864	27651	29	5.586	18.843
27341*	85	13.387	13.552	27415*	38	13.556	20.625					27578*	36	11.205	10.232	27652	15	7.534	18.679
27342	23	13.388	13.195	27416*	43	15.275	20.708					27579*	78	12.792	10.825	27653	22	8.952	18.043
27343	8	15.492	13.421	27417	21	15.421	20.386					27580	14	12.994	10.015	27654	15	9.682	18.892
27344	9	16.068	13.474	27418	17	20.256	20.240					27581	14	17.553	10.434	27655	21	11.433	18.127
27345	9	17.847	13.295	27419	15	23.030	20.852					27582	33	22.105	10.214	27656	24	15.025	18.386
27346	16	19.997	13.397	27420	12	25.231	20.722					27583	20	23.048	10.858	27657	14	18.552	18.373
27347	11	0.834	14.428	27421	14	1.850	21.124					27584*	42	23.871	10.906	27658*	36	19.432	18.094
27348	31	3.138	14.394	27422	22	12.945	21.295					27585	10	25.803	10.392	27659*	42	22.530	18.146
27349	31	3.398	14.592	27423	28	16.065	21.550					27586	32	1.481	11.514	27660	30	23.074	18.408
27350	12	7.846	14.776	27424	11	19.148	21.290					27587	18	2.194	11.754	27661	16	25.341	18.536
27351	10	11.959	14.110	27425	10	19.876	21.808					27588*	36	3.621	11.166	27662	32	2.845	19.974
27352	16	13.375	14.457	27426	8	23.900	21.842					27589	17	4.606	11.319	27663	30	3.775	19.955
27353	9	17.946	14.932	27427	13	24.087	21.966					27590	9	4.634	11.594	27664	14	5.782	19.832
27354	27	19.177	14.362	27428	9	2.287	22.196					27591	15	6.267	11.539	27665	15	7.750	19.864
27355	10	19.688	14.240	27429	23	6.155	22.922					27592	15	7.461	11.667	27666	26	8.048	19.123
27356	18	22.616	14.456	27430	10	7.573	22.396					27593	21	9.258	11.108	27667	16	17.918	19.744
27357	8	23.406	14.156	27431	20	9.325	22.349					27594	10	10.644	11.308	27668	14	19.971	19.072
27358	8	1.595	15.400	27432	20	9.392	22.368					27595	24	11.684	11.798	27669	14	22.930	19.001
27359	8	2.555	15.362	27433	16	13.700	22.140					27596	36	11.966	11.478	27670	24	0.389	20.853
27360	10	7.050	15.154	27434	8	14.616	22.276					27597	11	14.992	11.320	27671	27	2.591	20.715
27361	10	8.492	15.729	27435	26	15.180	22.456					27598	20	15.576	11.486	27672	9	2.735	20.054
27362	8	8.620	15.778	27436	14	22.756	22.437					27599	11	0.157	12.910	27673	23	3.650	20.416
27363	27	13.900	15.269	27437*	29	23.818	22.749					27600	14	0.458	12.308	27674	12	17.782	20.581
27364	15	14.984	15.094	27438	23	2.953	23.504					27601	20	7.994	12.352	27675*	40	22.460	20.754
27365	10	17.380	15.540	27439*	75	9.027	23.170					27602	18	8.086	12.306	27676	33	23.958	20.536
27366	8	17.856	15.624	27440*	54	9.149	23.351					27603	23	11.274	12.168	27677	36	25.428	20.184
27367	12	18.016	15.919	27441	8	10.940	23.922					27604	11	14.208	12.143	27678	22	1.454	21.968
27368	13	21.109	15.452	27442	8	14.020	23.489					27605*	40	14.584	12.022	27679	36	4.074	21.496
27369	19	23.498	15.622	27443	10	15.178	23.925					27606	18	19.671	12.555	27680	13	10.308	21.834
27370	18	24.084	15.819	27444	10	23.740	23.722					27607	31	19.714	12.126	27681	18	11.216	21.498
27371	11	1.124	16.363	27445*	38	1.466	24.598					27608	19	19.736	12.044	27682	19	13.848	21.802
27372	9	4.688	16.206	27446*	36	2.594	24.852					27609	20	21.108	12.685	27683	22	13.920	21.449
27373*	30	6.558	16.648	27447	16	3.471	24.664					27610	40	24.876	12.066	27684	22	20.814	21.225
27374	16	6.678	16.340	27448	13	8.642	24.792					27611*	28	9.105	13.672	27685	14	24.684	21.744
27375	11	10.460	16.424	27449	12	8.852	24.871					27612	23	9.302	13.182	27686	24	0.124	22.434
27376	10	10.744	16.412	27450	10	9.379	24.946					27613*	60	10.180	13.933	27687*	34	1.186	22.746
27377	10	12.128	16.164	27451	10	19.360	24.931					27614	25	10.893	13.076	27688	15	4.914	22.957
27378	10	15.746	16.516	27452															



27694	23	13.543	22.212	27769	11	6.145	2.275	27843	17	22.102	9.282	27917	42	0.063	18.084	27991	9	17.872	24.723
27695	16	13.944	22.566	27770	12	12.822	2.395	27844	10	23.169	9.190	27918	12	0.470	18.936	27992*	32	21.066	24.936
27696	19	14.533	22.768	27771	8	14.568	2.088	27845	8	24.226	9.967	27919	18	0.607	18.345	27993	10	21.650	24.070
27697	20	15.354	22.407	27772	16	15.872	2.440	27846	20	25.574	9.667	27920	8	2.730	18.690	27994	10	25.193	24.969
27698	12	16.244	22.554	27773	13	16.369	2.308	27847	10	0.548	10.793	27921	11	2.878	18.458	27995	10	9.884	25.768
27699	20	18.597	22.808	27774	8	18.560	2.474	27848*	41	1.368	10.836	27922*	31	8.730	18.960	27996	28	10.288	25.435
27700*	60	19.176	22.123	27775	18	18.703	2.526	27849	8	3.299	10.320	27923	20	9.520	18.601	27997	8	12.550	25.780
27701	19	23.898	22.318	27776	12	21.023	2.075	27850	22	4.718	10.764	27924	9	11.035	18.150	27998	28	15.478	25.681
27702	40	23.900	22.266	27777	9	23.094	2.752	27851	8	5.692	10.344	27925	9	12.272	18.961	27999	8	15.674	25.569
27703	56	25.114	22.328	27778	19	23.155	2.989	27852	12	12.293	10.443	27926	9	12.520	18.622	28000	12	17.317	25.565
27704	13	1.115	23.717	27779	10	23.638	2.981	27853	9	14.411	10.890	27927	20	15.118	18.619				
27705	9	5.016	23.913	27780	10	25.572	2.580	27854	22	16.604	10.105	27928	9	17.834	18.482				
27706	20	8.484	23.308	27781	14	5.593	3.680	27855	27	16.663	10.110	27929	25	20.878	18.328				
27707	11	13.185	23.844	27782	10	7.175	3.261	27856	8	18.546	10.401	27930	8	20.965	18.376				
27708	20	14.690	23.217	27783	19	11.008	3.328	27857	26	2.382	11.993	27931	9	23.162	18.988				
27709	29	18.738	23.126	27784	9	15.729	3.772	27858	21	6.322	11.350	27932	13	23.922	18.555				
27710	14	21.850	23.596	27785	9	18.204	3.694	27859	8	15.801	11.679	27933	25	3.908	19.986				
27711	37	22.757	23.248	27786	12	18.967	3.706	27860	13	17.514	11.852	27934	11	8.187	19.389				
27712	100	25.245	24.574	27787	21	20.446	3.774	27861	13	19.260	11.710	27935	9	10.350	19.510				
27713*	56	2.043	24.106	27788	10	22.824	3.396	27862	20	21.872	11.178	27936	11	13.246	19.179				
27714	17	8.054	24.566	27789	9	24.738	3.193	27863	19	22.270	11.734	27937	27	13.247	19.050				
27715	21	10.472	24.561	27790*	50	2.634	4.971	27864	21	5.616	12.887	27938	8	19.159	19.786				
27716	20	12.862	24.391	27791	15	10.316	4.377	27865	8	10.760	12.042	27939	11	19.212	19.227				
27717	15	12.934	24.812	27792	10	11.842	4.472	27866	10	15.770	12.678	27940	25	19.750	19.497				
27718	9	15.056	24.144	27793	12	12.688	4.678	27867	14	16.942	12.476	27941*	30	19.947	19.012				
27719	17	15.382	24.500	27794*	32	15.350	4.834	27868	13	17.574	12.552	27942	27	0.005	20.693				
27720	13	17.270	24.337	27795	11	17.084	4.568	27869	18	21.983	12.600	27943	16	1.506	20.466				
27721	40	4.846	25.854	27796	8	19.302	4.543	27870	10	22.136	12.918	27944	19	2.973	20.106				
27722*	22	5.742	25.182	27797	10	24.140	4.793	27871	8	24.725	12.716	27945	26	6.769	20.187				
27723	13	7.505	25.334	27798	9	24.344	4.639	27872	8	2.626	13.581	27946	10	9.468	20.410				
27724	12	12.896	25.210	27799	8	2.150	5.442	27873	25	7.051	13.890	27947	11	10.030	20.297				
				27800	18	4.016	5.144	27874	19	10.500	13.460	27948	8	10.884	20.638				
				27801	11	4.450	5.826	27875	12	12.736	13.453	27949	21	11.786	20.004				
				27802	13	4.882	5.904	27876	29	13.422	13.835	27950	8	18.466	20.686				
				27803	20	7.788	5.332	27877	22	14.160	13.414	27951*	29	19.450	20.690				
				27804*	48	10.176	5.522	27878	27	17.642	13.056	27952	9	20.345	20.832				
				27805*	46	13.042	5.337	27879	8	21.350	13.552	27953	22	24.452	20.502				
				27806	8	14.328	5.890	27880	8	21.944	13.164	27954	8	24.732	20.670				
				27807	18	19.468	5.678	27881	11	24.412	13.622	27955	9	2.233	21.670				
				27808	26	20.226	5.083	27882	27	25.212	13.361	27956	26	3.846	21.776				
				27809	13	20.788	5.222	27883	13	3.667	14.326	27957	8	5.470	21.486				
				27810*	50	24.065	5.710	27884	15	5.990	14.942	27958	24	10.375	21.530				
				27811	8	25.621	5.564	27885	22	10.064	14.824	27959	12	14.600	21.150				
				27812*	43	0.778	6.576	27886	31	10.430	14.960	27960*	27	14.766	21.710				
				27813	8	4.574	6.370	27887	25	10.752	14.261	27961	27	17.481	21.891				
				27814*	63	5.662	6.163	27888	13	16.396	14.268	27962	11	19.544	21.839				
				27815	9	5.744	6.188	27889	28	18.335	14.144	27963	8	24.530	21.725				
				27816	19	7.262	6.825	27890	20	21.350	14.323	27964	26	1.452	22.198				
				27817	8	8.441	6.396	27891	10	21.982	14.738	27965	10	1.453	22.251				
				27818	8	15.076	6.816	27892	42	24.912	14.739	27966	8	2.402	22.286				
				27819	18	21.352	6.844	27893	9	25.050	14.406	27967*	34	2.664	22.252				
				27820	11	21.454	6.050	27894	8	5.526	15.520	27968	11	6.026	22.162				
				27821	13	5.544	7.910	27895	8	12.430	15.387	27969	11	7.648	22.508				
				27822	11	6.638	7.419	27896	19	13.330	15.279	27970	8	8.808	22.100				
				27823*	49	6.844	7.442	27897	8	13.764	15.758	27971	9	8.946	22.090				
				27824	9	10.164	7.434	27898	8	14.106	15.350	27972	24	10.149	22.470				
				27825*	31	10.500	7.580	27899	24	19.764	15.887	27973*	31	13.570	22.170				
				27826	26	15.136	7.358	27900	14	20.278	15.563	27974	8	15.298	22.029				
				27827	25	22.654	7.284	27901*	31	24.274	15.494	27975	8	15.772	22.886				
				27828	8	25.650	7.001	27902	12	2.072	16.178	27976	10	21.260	22.821				
				27829	9	0.556	8.050	27903*	27	2.733	16.006	27977	25	22.733	22.562				
				27830	9	8.694	8.314	27904	23	14.418	16.183	27978*	26	23.068	22.848				
				27831	8	9.316	8.718	27905	11	17.848	16.959	27979	23	25.339	22.891				
				27832	29	10.826	8.014	27906	25	0.040	17.680	27980	27	0.317	23.183				
				27833	17	12.850	8.945	27907*	26	0.731	17.852	27981*	100	2.795	23.500				
				27834	16	20.034	8.658	27908	9	1.028	17.264	27982	10	6.970	23.301				
				27835	10	22.471	8.314	27909	19	5.820	17.282	27983	24	13.042	23.478				
				27836	21	25.166	8.890	27910*	60	7.569	17.265	27984	16	9.021	24.938				
				27837	24	1.911	9.044	27911	8	7.715	17.758	27985	11	9.105	24.644				
				27838	8	3.476	9.103	27912	18	9.120	17.185	27986	12	9.144	24.382				
				27839	10	16.446	9.550	27913	10	10.194	17.780	27987	8	9.949	24.830				
				27840	20	18.566	9.360	27914	12	11.344	17.570	27988	9	10.478	24.118				
				27841	22	19.776	9.028	27915	10	21.296	17.864	27989	8	11.375	24.769				
				27842	11	20.722	9.466	27916	8	21.754	17.948	27990	13	12.564	24.969				

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28090	14	2.000	3.572	28164	26	2.502	9.264	28238	21	10.900	14.064	28312	8	15.735	21.260	28409	12	0.414	1.353
28091	8	3.382	3.350	28165	8	5.571	9.624	28239	16	14.381	14.611	28313	29	18.504	21.680	28410	20	1.666	1.816
28092*	41	6.236	3.585	28166	11	6.821	9.234	28240	13	15.182	14.016	28314	10	19.052	21.170	28411*	47	6.745	1.498
28093	13	7.872	3.134	28167	29	7.008	9.300	28241	16	22.528	14.138	28315	8	24.106	21.104	28412*	63	7.005	1.534
28094	27	8.056	3.098	28168	10	13.334	9.112	28242	8	22.918	14.034	28316	22	0.248	22.967	28413	8	7.020	1.882
28095	9	10.562	3.836	28169	27	14.652	9.864	28243	8	23.712	14.408	28317*	60	5.769	22.673	28414	8	7.284	1.356
28096	8	13.674	3.121	28170	11	16.730	9.366	28244	9	23.856	14.394	28318*	32	7.200	22.156	28415	8	7.313	1.896
28097	24	18.376	3.400	28171	8	19.204	9.102	28245	8	24.393	14.372	28319	17	9.824	22.366	28416	21	8.012	1.314
28098*	66	20.554	3.849	28172	9	20.722	9.443	28246*	38	1.696	15.880	28320*	40	12.950	22.396	28417	15	8.844	1.872
28099	30	21.354	3.795	28173	13	20.740	9.285	28247	40	2.324	15.114	28321	27	15.400	22.810	28418	11	10.327	1.128
28100	8	24.024	3.806	28174	33	25.724	9.916	28248	8	3.656	15.136	28322	36	17.646	22.668	28419	27	13.812	1.854
28101	8	4.646	4.411	28175	12	1.578	10.356	28249	17	7.187	15.594	28323	9	19.727	22.368	28420	15	15.854	1.278
28102	12	8.848	4.415	28176	25	2.920	10.035	28250	22	11.710	15.569	28324	9	22.883	22.295	28421	8	21.278	1.596
28103	8	8.912	4.569	28177	18	6.539	10.639	28251	13	14.362	15.208	28325*	24	0.588	23.248	28422	10	24.230	1.400
28104	21	9.950	4.758	28178	21	6.644	10.102	28252	37	18.320	15.746	28326	20	2.860	23.261	28423	8	1.339	2.950
28105	8	10.513	4.324	28179*	45	6.925	10.378	28253	18	20.554	15.479	28327*	39	3.974	23.044	28424	9	7.429	2.562
28106	8	11.371	4.345	28180*	41	8.412	10.110	28254	23	22.674	15.737	28328	17	5.194	23.083	28425*	63	7.826	2.182
28107	32	13.543	4.226	28181	8	10.580	10.277	28255	8	5.034	16.839	28329*	40	5.296	23.600	28426*	44	8.160	2.205
28108	12	13.672	4.886	28182	14	14.014	10.856	28256	15	7.098	16.475	28330	32	8.914	23.969	28427*	44	11.462	2.266
28109	8	14.867	4.823	28183	8	14.430	10.349	28257	21	8.844	16.350	28331	11	12.584	23.726	28428*	65	12.370	2.406
28110	10	16.081	4.030	28184	21	16.445	10.317	28258	9	9.106	16.376	28332	12	15.260	23.163	28429	15	13.469	2.020
28111	8	18.784	4.624	28185	20	20.576	10.546	28259	31	9.226	16.282	28333	14	15.650	23.880	28430	8	21.614	2.602
28112	29	20.084	4.024	28186	16	22.212	10.023	28260	12	14.174	16.446	28334	8	20.666	23.468	28431	13	21.928	2.526
28113	12	20.635	4.665	28187	8	22.664	10.925	28261*	44	15.026	16.632	28335	22	25.976	23.400	28432	12	1.254	3.128
28114	12	24.646	4.974	28188	19	23.774	10.524	28262*	60	15.132	16.744	28336	20	5.217	24.450	28433	20	7.050	3.270
28115	14	1.421	5.185	28189*	60	24.816	10.333	28263	8	19.723	16.330	28337	19	10.810	24.106	28434	22	7.570	3.932
28116	12	1.626	5.024	28190	20	24.836	10.172	28264	9	20.039	16.408	28338	11	17.836	24.264	28435	8	7.603	3.498
28117	10	2.394	5.885	28191	8	2.201	11.124	28265*	45	21.496	16.646	28339	18	18.768	24.794	28436	21	7.768	3.645
28118	10	2.914	5.936	28192	8	5.252	11.366	28266	33	24.965	16.654	28340	11	22.034	24.779	28437	18	10.560	3.615
28119	16	5.400	5.904	28193	12	5.685	11.762	28267	8	25.739	16.154	28341*	38	23.016	24.901	28438	10	15.606	3.386
28120	9	6.064	5.907	28194	17	5.776	11.383	28268	8	0.226	17.970	28342	9	24.715	24.660	28439	9	18.400	3.682
28121*	46	7.671	5.757	28195	8	7.776	11.350	28269	25	16.711	17.324	28343	20	24.794	24.451	28440	23	24.254	3.344
28122*	65	7.753	5.574	28196	8	9.552	11.200	28270	8	19.346	17.411	28344	8	0.966	25.818	28441	26	3.591	4.830
28123	10	9.522	5.429	28197	26	14.434	11.592	28271	23	25.126	17.981	28345	10	2.744	25.334	28442	19	7.407	4.780
28124	8	11.816	5.164	28198	15	15.282	11.296	28272	20	1.385	18.944	28346	8	5.188	25.592	28443*	33	8.419	4.070
28125	12	16.652	5.336	28199	8	17.188	11.703	28273	11	3.614	18.806	28347	8	6.580	25.261	28444	26	9.226	4.324
28126	8	20.106	5.591	28200	11	24.508	11.714	28274	8	5.285	18.146	28348	10	11.749	25.095	28445	11	10.533	4.976
28127	8	23.044	5.257	28201	20	24.560	11.716	28275	13	5.584	18.173	28349	20	16.246	25.460	28446	11	16.921	4.951
28128*	57	1.356	6.100	28202	8	0.834	12.556	28276	16	11.500	18.988	28350	25	19.336	25.771	28447	26	24.016	4.368
28129	9	3.462	6.658	28203	22	4.230	12.506	28277	20	11.590	18.926	28351	10	24.570	25.404	28448	12	25.000	4.314
28130	8	10.416	6.520	28204	12	4.808	12.930	28278	20	14.936	18.292	28352	15	25.700	25.332	28449	9	1.955	5.403
28131	14	13.340	6.442	28205	8	6.188	12.844	28279	19	17.812	18.319					28450	10	2.172	5.362
28132	22	13.805	6.122	28206	18	6.937	12.520	28280*	68	17.828	18.344					28451	13	3.778	5.952
28133	23	15.420	6.346	28207	8	7.186	12.264	28281	12	18.766	18.575					28452	10	6.500	5.686
28134*	41	17.936	6.674	28208	25	7.336	12.428	28282	8	22.214	18.585					28453	16	6.554	5.716
28135	10	18.704	6.272	28209	8	8.495	12.372	28283	11	22.744	18.110					28454	26	10.044	5.188
28136	22	19.142	6.469	28210	29	9.238	12.626	28284	12	0.633	19.390					28455	14	10.860	5.990
28137	8	19.578	6.692	28211*	34	9.529	12.104	28285	11	12.386	19.618					28456	8	11.624	5.870
28138	14	20.748	6.846	28212*	44	12.054	12.872	28286	8	14.846	19.590					28457*	36	11.768	5.728
28139	23	22.535	6.634	28213	10	13.053	12.508	28287	36	16.598	19.008					28458	13	14.831	5.510
28140	13	2.964	7.374	28214	8	17.449	12.289	28288*	37	18.045	19.824					28459	19	15.380	5.964
28141	9	5.035	7.394	28215	10	19.550	12.312	28289	14	19.120	19.757					28460	10	20.204	5.553
28142*	36	5.086	7.955	28216	10	20.110	12.074	28290*	40	19.360	19.126					28461	17	20.500	5.249
28143	17	5.552	7.560	28217	8	21.314	12.821	28291	8	20.202	19.139					28462*	45	21.925	5.691
28144	18	6.984	7.502	28218	14	21.898	12.764	28292	14	21.621	19.811					28463	26	5.622	6.274
28145	21	8.465	7.704	28219	9	2.114	13.099	28293	22	22.762	19.838					28464	11	5.816	6.301
28146	23	9.192	7.802	28220	32	2.607	13.737	28294	8	0.956	20.818					28465	9	8.672	6.214
28147	10	12.906	7.366	28221	12	3.762	13.912	28295	23	1.944	20.886					28466	18	9.272	6.866
28148	8	12.982	7.806	28222	12	8.600	13.990	28296	36	4.461	20.934					28467	8	13.080	6.894
28149	32	14.274	7.966	28223	17	9.510	13.920	28297	8	6.460	20.463					28468	10	15.049	6.500
28150	11	14.718	7.706	28224*	34	9.746	13.416	28298*	31	9.648	20.628					28469	26	17.312	6.130
28151	14	16.482	7.612	28225	21	18.776	13.728	28299	24	10.852	20.682					28470	22	19.110	6.090
28152	31	23.834	7.350	28226	9	18.885	13.750	28300	14	14.361	20.134					28471*	36	22.536	6.534
28153	10	23.869	7.885	28227*	38	19.044	13.654	28301	8	16.895	20.720					28472	18	0.074	7.042
28154	10	2.334	8.974	28228	28	21.194	13.866	28302	16	17.840	20.704					28473	25	1.376	7.744
28155	8	11.317	8.565	28229*	40	22.522	13.528	28303	10	18.286	20.014								



28483	8	2.566	8.659	28557	22	23.620	13.169	28631*	41	13.540	19.909	28806	8	20.360	6.400
28484	8	5.372	8.359	28558	12	0.121	14.540	28632	19	14.246	19.796	28807	10	25.834	6.500
28485	26	5.410	8.014	28559	8	1.639	14.854	28633	15	15.434	19.452	28808	8	1.827	7.486
28486	11	10.203	8.354	28560	12	8.458	14.974	28634	8	15.656	19.380	28809	9	10.316	7.642
28487*	31	14.333	8.600	28561	10	8.850	14.017	28635	11	15.684	19.916	28810	11	11.594	7.668
28488	11	16.540	8.505	28562	10	9.311	14.126	28636	10	20.072	19.806	28811	8	25.258	7.942
28489*	37	21.174	8.835	28563	8	9.374	14.130	28637	26	23.314	19.500	28812	10	3.648	8.454
28490*	32	3.184	9.352	28564	17	11.582	14.610	28638	10	24.396	19.790	28813	19	4.060	8.749
28491	13	4.125	9.332	28565	9	11.760	14.060	28639	8	0.020	20.700	28814	9	5.499	8.030
28492	25	6.055	9.473	28566	20	12.130	14.454	28640	19	0.398	20.237	28815	8	6.046	8.811
28493	24	6.980	9.256	28567	23	13.717	14.196	28641	8	3.879	20.597	28816	12	6.060	8.376
28494	29	10.126	9.010	28568	9	14.824	14.120	28642	10	5.776	20.995	28817	8	9.875	8.103
28495	9	11.036	9.450	28569*	28	19.248	14.521	28643	19	9.028	20.708	28818	12	13.950	8.710
28496	9	14.192	9.075	28570	8	19.607	14.137	28644*	41	10.409	20.218	28819*	22	15.372	8.200
28497	12	14.365	9.720	28571	10	19.916	14.170	28645	18	12.238	20.780	28820	8	17.416	8.834
28498	14	17.516	9.878	28572	29	25.274	14.270	28646	8	13.738	20.229	28821	9	20.388	8.030
28499	14	18.174	9.784	28573	8	4.691	15.489	28647	8	14.175	20.524	28822	8	1.074	9.235
28500	10	23.576	9.616	28574	17	5.292	15.784	28648	28	19.604	20.570	28823	8	2.109	9.690
28501	13	1.338	10.916	28575	8	8.125	15.986	28649	38	22.179	20.299	28824	10	2.440	9.730
28502*	71	2.375	10.717	28576	16	10.803	15.657	28650	18	22.422	20.983	28825	10	2.560	9.680
28503	15	2.400	10.559	28577	25	12.049	15.674	28651*	64	2.190	21.010	28826	8	3.933	9.576
28504	27	3.281	10.295	28578	18	12.594	15.646	28652*	26	4.441	21.160	28827	8	10.456	9.444
28505	12	7.558	10.831	28579	9	13.424	15.821	28653	19	8.658	21.104	28828	8	10.764	9.896
28506	15	11.086	10.934	28580	13	14.156	15.142	28654	10	11.566	21.311	28829	8	14.595	9.574
28507	13	11.400	10.178	28581	8	14.350	15.640	28655	10	12.449	21.909	28830	11	16.413	9.200
28508	31	14.126	10.494	28582	34	14.364	15.622	28656	12	16.694	21.142	28831	8	16.974	9.383
28509	26	14.838	10.701	28583*	47	16.987	15.142	28657	8	18.735	21.620	28832	8	19.588	9.150
28510	11	14.970	10.670	28584	12	18.624	15.001	28658	8	22.240	21.790	28833*	34	22.221	9.214
28511	22	15.794	10.752	28585	18	0.278	16.139	28659	31	23.636	21.090	28834	8	23.596	9.080
28512	8	16.125	10.194	28586	8	3.350	16.527	28660	10	24.570	21.460	28835	8	1.432	10.478
28513	8	16.660	10.266	28587	8	4.436	16.165	28661	15	25.679	21.535	28836*	26	11.376	10.352
28514	8	17.331	10.379	28588*	33	4.479	16.186	28662	19	4.865	22.674	28837	8	18.123	10.732
28515	10	24.602	10.087	28589	25	7.029	16.754	28663	10	6.776	22.890	28838*	30	22.387	10.238
28516	14	24.930	10.128	28590	10	8.738	16.508	28664*	30	8.174	22.150	28839	8	22.991	10.468
28517	18	25.053	10.081	28591	25	11.500	16.791	28665	12	8.660	22.881	28840	10	23.215	10.194
28518	8	0.231	11.330	28592	11	12.670	16.129	28666	10	8.766	22.280	28841	13	0.372	11.586
28519	14	5.406	11.506	28593	11	14.200	16.090	28667	9	14.140	22.120	28842	10	2.370	11.610
28520	15	5.688	11.300	28594	8	18.682	16.478	28668	11	14.556	22.804	28843*	20	3.982	11.891
28521*	40	8.385	11.200	28595	29	21.906	16.370	28669	22	14.986	22.190	28844	9	4.484	11.810
28522*	27	8.384	11.175	28596*	38	24.127	16.611	28670	21	17.255	22.905	28845	8	5.491	11.840
28523	18	8.704	11.380	28597	25	2.574	17.037	28671	10	18.511	22.254	28846	12	6.464	11.910
28524	8	9.602	11.428	28598	8	4.129	17.510	28672*	40	21.570	22.179	28847	16	8.518	11.806
28525	18	11.410	11.679	28599	18	6.452	17.948	28673	33	25.610	22.923	28848	8	8.818	11.838
28526	10	12.674	11.080	28600	25	10.540	17.856	28674	24	3.642	23.770	28849*	19	12.084	11.940
28527*	40	14.310	11.052	28601	15	11.632	17.774	28675	9	8.564	23.010	28850	9	15.688	11.462
28528	26	17.409	11.088	28602	8	12.524	17.686	28676	18	11.101	23.718	28851*	23	17.027	11.097
28529	19	22.834	11.952	28603	17	13.026	17.544	28677	29	14.214	23.914	28852	12	20.396	11.216
28530	10	2.079	12.101	28604*	37	14.034	17.450	28678	24	15.659	23.252	28853	10	21.358	11.300
28531	13	2.132	12.105	28605	8	14.276	17.829	28679	13	17.134	23.953	28854	10	24.312	11.386
28532	8	4.746	12.104	28606*	43	14.473	17.762	28680	8	21.652	23.912	28855	29	25.540	11.774
28533	22	4.844	12.181	28607	8	15.692	17.184	28681	8	22.516	23.558	28856	24	0.115	12.198
28534	26	4.970	12.280	28608	8	15.740	17.082	28682	8	23.670	23.256	28857	9	0.266	12.925
28535	24	10.156	12.227	28609	8	17.161	17.488	28683	15	2.469	24.832	28858*	23	1.050	12.682
28536	19	13.296	12.810	28610	28	20.476	17.206	28684	8	6.410	24.491	28859	13	1.172	12.790
28537	8	14.080	12.762	28611	8	0.372	17.518	28685	15	11.248	24.616	28860	8	8.089	12.800
28538	8	15.211	12.796	28612	22	2.748	18.361	28686	11	12.180	24.450	28861	8	8.200	12.357
28539	11	16.152	12.403	28613	10	4.412	18.800	28687*	56	13.120	24.330	28862	8	8.560	12.326
28540	8	18.932	12.348	28614	18	5.306	18.813	28688	21	14.396	24.713	28863	14	10.774	12.466
28541	9	20.768	12.244	28615	12	6.916	18.190	28689	19	19.350	24.367	28864	16	12.310	12.946
28542*	53	22.576	12.560	28616	12	7.239	18.831	28690*	49	20.596	24.680	28865	10	18.855	12.712
28543	13	24.835	12.010	28617	8	9.975	18.839	28691	8	20.959	24.334	28866	8	20.015	12.648
28544	35	0.110	13.931	28618	8	14.968	18.866	28692	18	24.715	24.064	28867	11	22.910	12.048
28545	28	8.657	13.408	28619	24	15.372	18.272	28693*	28	0.694	25.294	28868	10	25.341	12.726
28546	13	9.236	13.692	28620	20	18.402	18.348	28694	8	2.256	25.785	28869	16	2.845	13.864
28547	9	9.787	13.907	28621	8	18.490	18.912	28695	10	2.391	25.044	28870	12	4.180	13.086
28548	8	11.425	13.215	28622	16	20.322	18.822	28696	12	3.386	25.700	28871	8	5.348	13.888
28549	10	12.588	13.349	28623	12	23.188	18.417	28697	12	4.498	25.388	28872	10	8.544	13.418
28550	23	13.190	13.960	28624	11	4.250	19.322	28698	11	5.838	25.230	28873	8	12.344	13.168
28551	8	13.956	13.261	28625*	66	5.156	19.280	28699	10	9.222	25.646	28874	14	12.466	13.206
28552*	70	14.916	13.968	28626	10	7.113	19.956	28700	15	13.274	25.518	28875	8	13.316	13.458
28553*	32	18.400	13.980	28627	19	7.948	19.094	28701	10	13.628	25.867	28876	8	14.150	13.320
28554	10	20.569	13.847	28628	25	8.674	19.768	28702	8	18.481	25.800	28877	9	14.664	13.106
28555	11	22.712	13.294	28629	8	12.840	19.632	28703	10	22.783	25.560	28878	8	14.758	13.980
28556*	48	23.504	13.060	28630	10	12.896	19.354	28704	30	23.207	25.747	28879	8	20.107	13.466

R.A. 9h 32m

Plate 479; 1915 Feb. 11.

Provisional Constants.

$$\begin{matrix} A & B & C \\ -0.1760 & +0.00788 & +0.235 \end{matrix}$$

$$\begin{matrix} D & E & F \\ -0.00772 & -0.1779 & -0.0042 \end{matrix}$$

Mag. = 14.7 - 1.09√d

No.	d	x	y
28750	9	5.557	0.902
28751*	30	6.823	0.118
28752	9	18.956	0.812
28753	8	24.136	0.677
28754	20	24.636	0.902
28755	10	25.574	0.277
28756	11	1.604	1.002
28757	8	3.275	1.422
28758*	22	9.362	1.222
28759	8	17.228	1.082
28760	21	18.340	1.782
28761	21	1.659	2.952
28762	9	3.655	2.902
28763	10	7.876	2.662
28764	12	9.856	2.812
28765	8	11.732	2.022
28766	22	12.585	2.602
28767	9	14.792	2.112
28768	8	15.165	2.872
28769	10	15.250	2.862
28770	10	20.314	2.622
28771	8	21.190	2.312
28772	18	22.772	2.022
28773	10	24.824	2.712
28774	16	1.434	3.982
28775	13	2.418	3.912
28776	9	9.478	3.092
28777	8	9.791	3.762
28778	13	10.334	3.952
28779*	20	14.755	3.862
28780	8	15.190	3.932
28781	10	15.810	3.512
28782	8	16.235	3.332
28783*	25	16.660	3.242
28784*	19	16.964	3.992
28785	12	19.657	3.802
28786	8	21.049	3.672
28787	8	23.328	3.592
28788	9	24.286	3.002
28789	13	25.496	3.092
28790*	22	4.403	4.932
28791	12	10.603	4.912
28792	8	12.212	4.022
28793	14	12.902	4.082
28794	8	22.706	4.452
28795	10	24.198	4.242
28796	9	25.332	4.012
28797	13	25.904	4.482
28798	12	4.088	5.482
28799	8	9.320	5.672
28800	8	11.178	5.372
28801	8	13.300	5.682
28802	8	16.604	5.072
28803	8	21.191	5.202
28804	8	6.800	6.612
28805	9	15.530	6.662



28880	8	20.468	13.748	28954	11	14.784	22.876	29053	25	14.153	0.042	29127	11	11.408	9.407	29201*	52	22.481	17.222
28881	10	21.212	13.393	28955	17	15.830	22.403	29054*	62	16.940	0.936	29128	9	13.692	9.193	29202	12	4.624	18.243
28882	10	7.540	14.526	28956	10	17.440	22.305	29055*	76	23.991	0.692	29129	19	17.218	9.182	29203*	44	5.193	18.458
28883	14	10.560	14.254	28957	12	17.624	22.812	29056	42	1.774	1.198	29130*	69	19.714	9.735	29204	8	7.970	18.079
28884	9	17.530	14.603	28958	10	17.756	22.408	29057	21	10.490	1.694	29131	24	23.214	9.264	29205*	45	15.411	18.440
28885	12	18.686	14.305	28959	8	18.164	22.320	29058*	45	10.498	1.310	29132	11	25.262	9.226	29206	26	21.012	18.434
28886*	53	19.379	14.670	28960	14	19.114	22.024	29059*	72	18.494	1.968	29133	16	0.218	10.785	29207	28	12.754	19.610
28887	16	19.952	14.763	28961	8	19.322	22.710	29060	25	5.152	2.292	29134	24	0.441	10.510	29208	29	12.826	19.477
28888	10	24.077	14.100	28962*	40	20.424	22.764	29061	42	12.035	2.968	29135	42	9.713	10.258	29209	8	17.886	19.086
28889	18	24.958	14.734	28963	17	22.144	22.446	29062	26	12.592	2.728	29136	8	20.889	10.756	29210	35	18.184	19.860
28890	8	10.844	15.633	28964	8	25.923	22.592	29063	9	12.962	2.672	29137	10	21.836	10.482	29211	8	18.598	19.116
28891	8	14.800	15.300	28965	9	25.930	22.724	29064*	40	13.114	2.123	29138	12	21.862	10.068	29212	17	19.420	19.422
28892	16	18.214	15.422	28966	8	0.237	23.194	29065	33	16.218	2.824	29139	14	1.552	11.690	29213	40	19.770	19.877
28893	8	23.732	15.233	28967	12	2.440	23.668	29066	16	18.552	2.229	29140	12	4.201	11.852	29214	24	21.004	19.316
28894*	23	1.731	16.224	28968	8	4.830	23.784	29067	9	18.645	2.102	29141	22	7.896	11.060	29215	13	21.286	19.160
28895	9	3.796	16.914	28969	8	9.255	23.493	29068	10	21.566	2.388	29142	18	9.662	11.138	29216	8	21.804	19.348
28896	12	10.085	16.515	28970	8	9.463	23.141	29069	11	21.638	2.178	29143	10	10.056	11.284	29217	20	22.037	19.900
28897	11	10.867	16.067	28971	8	11.226	23.345	29070	14	25.956	2.088	29144	17	14.056	11.862	29218	26	23.412	19.202
28898	12	14.910	16.522	28972	11	12.250	23.325	29071	11	1.442	3.305	29145	9	14.442	11.362	29219	40	4.367	20.330
28899	10	15.934	16.635	28973	8	14.243	23.388	29072	31	2.653	3.386	29146	18	16.360	11.919	29220	22	7.438	20.707
28900	19	16.470	16.146	28974	8	17.518	23.390	29073	29	6.916	3.590	29147	12	23.926	11.252	29221	38	13.746	20.835
28901	9	19.848	16.468	28975	19	17.944	23.291	29074	46	8.740	3.130	29148	19	0.156	12.368	29222	10	15.241	20.047
28902	9	22.408	16.426	28976	8	18.053	23.770	29075	8	14.208	3.045	29149*	62	2.780	12.069	29223	38	18.620	20.913
28903	10	3.918	17.790	28977	12	20.466	23.770	29076	23	15.905	3.692	29150	10	8.006	12.013	29224	24	19.472	20.066
28904	8	5.044	17.192	28978	22	21.352	23.194	29077	9	21.376	3.816	29151	19	8.240	12.186	29225	43	19.620	20.239
28905	18	6.808	17.867	28979	8	24.522	23.924	29078	17	1.366	4.554	29152*	57	9.619	12.532	29226	14	24.641	20.668
28906	15	9.573	17.858	28980	20	7.964	24.378	29079	8	1.488	4.104	29153	14	2.593	13.026	29227	8	24.939	20.540
28907	8	20.928	17.638	28981	8	9.450	24.108	29080	14	2.500	4.307	29154	30	3.579	13.376	29228	8	2.600	21.250
28908	8	23.530	17.110	28982	11	13.805	24.850	29081	29	3.076	4.768	29155*	32	7.124	13.170	29229	9	12.755	21.274
28909	20	15.399	17.654	28983*	29	14.949	24.318	29082	42	4.220	4.455	29156	12	14.450	13.747	29230	8	22.915	21.290
28910	10	0.820	18.042	28984	9	16.916	24.144	29083	24	6.133	4.998	29157	14	14.984	13.553	29231	15	3.278	22.880
28911	8	5.085	18.440	28985	8	17.312	24.432	29084	16	17.572	4.330	29158	24	15.156	13.562	29232	9	11.330	22.830
28912	8	5.868	18.290	28986	18	17.987	24.447	29085	26	18.060	4.450	29159	14	18.836	13.005	29233	18	20.693	22.777
28913	10	6.624	18.914	28987	10	22.453	24.376	29086	8	5.508	5.847	29160	9	19.494	13.402	29234	16	3.285	23.015
28914	8	8.586	18.812	28988	8	22.966	24.844	29087	8	10.121	5.283	29161	9	22.448	13.766	29235	8	4.035	23.728
28915	12	15.328	18.950	28989	13	23.275	24.000	29088*	60	12.834	5.572	29162	8	25.946	13.387	29236	20	12.232	23.142
28916	15	15.689	18.335	28990*	36	24.026	24.771	29089	8	13.185	5.848	29163	11	1.340	14.406	29237	21	15.238	23.876
28917	11	17.312	18.752	28991	17	25.756	24.235	29090	22	14.136	5.818	29164	17	3.743	14.820	29238	33	15.405	23.946
28918	13	22.533	18.626	28992	9	0.534	25.208	29091	9	14.488	5.304	29165*	54	4.187	14.790	29239	24	16.114	23.012
28919	15	0.966	19.126	28993	22	0.956	25.388	29092	10	16.520	5.176	29166	12	4.764	14.625	29240*	64	22.287	23.500
28920	8	2.050	19.400	28994	16	3.800	25.798	29093	14	18.500	5.042	29167	9	20.109	14.298	29241	25	25.573	23.092
28921	8	4.832	19.364	28995	8	5.833	25.000	29094*	45	19.140	5.185	29168	25	23.255	14.534	29242	21	0.638	24.316
28922*	15	6.570	19.158	28996	8	8.766	25.569	29095*	43	20.416	5.752	29169	8	23.294	14.794	29243	13	1.891	24.232
28923	8	13.053	19.948	28997	9	10.832	25.680	29096*	42	24.143	5.836	29170	52	24.992	14.125	29244	30	3.126	24.522
28924	14	14.191	19.442	28998	8	14.200	25.358	29097	9	0.065	6.482	29171	15	1.008	15.544	29245	28	6.645	24.769
28925	8	14.688	19.910	28999	8	16.367	25.190	29098	18	3.028	6.792	29172	25	2.228	15.036	29246	9	12.665	24.905
28926*	34	21.509	19.876	29000	11	16.532	25.830	29099	32	9.235	6.222	29173	27	5.500	15.587	29247	11	22.093	24.793
28927	8	21.733	19.469	29001*	22	23.973	25.123	29100	12	9.318	6.064	29174	26	7.031	15.276	29248	41	22.444	24.146
28928	11	0.096	20.621					29101	8	9.614	6.794	29175	8	7.939	15.028	29249	9	24.714	24.560
28929	15	1.309	20.710					29102	9	17.152	6.093	29176	25	9.144	15.282	29250	75	25.154	24.244
28930	8	3.022	20.049					29103	10	19.555	6.486	29177	28	12.185	15.262	29251	49	25.155	24.893
28931	9	10.051	20.862					29104	12	19.748	6.172	29178	10	12.980	15.582	29252	8	0.459	25.874
28932	10	11.767	20.855					29105	22	20.259	6.722	29179*	74	13.103	15.712	29253*	54	1.353	25.436
28933	10	2.252	21.067					29106*	44	23.656	6.228	29180*	42	13.393	15.356	29254*	69	1.397	25.078
28934	13	3.364	21.125					29107	8	24.583	6.560	29181	10	16.410	15.434	29255*	76	3.850	25.032
28935	9	9.184	21.172					29108	15	4.381	7.549	29182	12	16.854	15.916	29256	12	6.175	25.372
28936	8	18.568	21.120					29109	9	7.506	7.474	29183*	60	4.641	16.939	29257	24	6.930	25.794
28937	8	18.628	21.806					29110	22	11.332	7.462	29184	22	5.856	16.984	29258	10	9.506	25.990
28938*	31	19.357	21.260					29111	17	11.574	7.370	29185	26	7.156	16.084	29259	16	10.422	25.414
28939	8	19.774	21.316					29112*	46	12.798	7.567	29186	11	12.970	16.157	29260	42	11.888	25.633
28940	8	21.436	21.160					29113	42	13.326	7.510	29187	10	16.810	16.845	29261	26	12.480	25.270
28941	8	22.178	21.346					29114*	49	13.679	7.066	29188	15	21.922	16.649	29262	12	20.567	25.046
28942	8	25.872	21.943					29115	30	19.386	7.280	29189	49	24.220	16.408	29263	20	21.014	25.985
28943	8	1.381	22.878					29116	15	2.466	8.238	29190	16	24.315	16.944	29264	31	21.216	25.706
28944*	23	3.316	22.516					29117											



R.A. 9<sup>h</sup> 48<sup>m</sup>

Plate 457; 1915 Feb. 7.

Provisional Constants.

A	B	C
-01771	+00420	-1871

D	E	F
-00416	-01778	+0718

Mag. = 15.3 - 1.09√d

29356	16	9.234	5.289	29430	12	13.511	11.625	29504	18	11.336	17.732	29578*	42	3.600	22.910
29357	24	13.314	5.838	29431	21	15.901	11.400	29505	8	12.870	17.576	29579	19	4.240	22.050
29358	10	13.366	5.560	29432*	26	17.672	11.414	29506	11	14.818	17.963	29580	11	6.637	22.554
29359	9	13.904	5.940	29433	11	17.678	11.198	29507	8	15.558	17.039	29581	9	7.859	22.050
29360	8	14.193	5.015	29434	8	19.236	11.748	29508	8	15.753	17.592	29582	8	10.588	22.584
29361	8	14.943	5.714	29435	8	24.386	11.674	29509	15	18.530	17.035	29583	14	10.944	22.780
29362	10	19.989	5.090	29436	11	5.120	12.020	29510	13	18.536	17.050	29584*	39	13.090	22.224
29363	12	25.268	5.300	29437	16	7.936	12.450	29511	13	20.855	17.770	29585	8	14.036	22.367
29364	15	25.687	5.038	29438	16	9.612	12.345	29512	8	24.290	17.578	29586	9	14.410	22.743
29365*	26	1.002	6.350	29439	8	10.640	12.403	29513	10	24.600	17.575	29587	8	16.296	22.528
29366	9	1.235	6.192	29440*	34	12.108	12.322	29514	18	24.774	17.751	29588*	44	16.633	22.140
29367	10	4.945	6.952	29441	12	12.370	12.956	29515	23	25.168	17.928	29589	9	16.839	22.348
29368	8	7.281	6.354	29442	8	12.400	12.004	29516	10	5.871	18.922	29590	8	18.677	22.940
29369	9	8.222	6.655	29443	8	12.694	12.596	29517	8	5.942	18.513	29591	9	19.644	22.084
29370	11	20.082	6.954	29444	12	15.140	12.532	29518	10	6.144	18.170	29592	20	21.092	22.706
29371	8	2.336	7.313	29445	8	17.600	12.740	29519	8	8.868	18.746	29593	14	3.037	23.193
29372	9	2.618	7.028	29446	8	18.266	12.030	29520	8	9.452	18.716	29594	8	3.496	23.886
29373	10	3.996	7.421	29447*	44	20.630	12.719	29521	10	10.314	18.865	29595	11	4.724	23.989
29374*	30	4.074	7.720	29448	8	21.770	12.899	29522	14	12.292	18.036	29596	25	6.744	23.283
29375*	23	5.886	7.417	29449	13	22.818	12.625	29523	10	12.550	18.589	29597	8	7.100	23.352
29376	9	13.632	7.022	29450*	29	23.830	12.608	29524*	32	14.486	18.155	29598	10	8.112	23.511
29377	11	18.988	7.176	29451	8	23.928	12.184	29525	8	15.641	18.585	29599	8	10.776	23.506
29378	13	24.906	7.432	29452	12	24.320	12.974	29526	9	16.914	18.840	29600	18	11.550	23.612
29379	8	25.068	7.866	29453	25	25.872	12.324	29527	19	19.258	18.993	29601	9	11.886	23.998
29380	11	0.532	8.893	29454	14	25.878	12.093	29528	8	21.932	18.110	29602	8	12.618	23.672
29381	26	2.332	8.925	29455	9	7.312	13.718	29529	8	23.450	18.595	29603*	28	12.745	23.000
29382	8	3.648	8.584	29456	8	9.981	13.775	29530	8	24.400	18.280	29604	8	14.160	23.926
29383	8	4.024	8.902	29457	19	10.700	13.870	29531	17	0.844	19.319	29605	11	16.074	23.180
29384	13	5.047	8.452	29458	17	13.136	13.732	29532	8	1.700	19.262	29606	26	16.790	23.200
29385	23	6.894	8.724	29459*	30	15.400	13.030	29533	9	3.324	19.840	29607	8	19.380	23.179
29386	19	10.730	8.038	29460	10	17.160	13.432	29534	10	3.445	19.538	29608	11	19.503	23.095
29387	17	11.702	8.580	29461	8	21.480	13.552	29535	8	4.666	19.268	29609	15	19.684	23.232
29388	12	13.755	8.320	29462	10	25.500	13.362	29536	8	4.766	19.955	29610	12	19.954	23.998
29389	21	14.728	8.765	29463	8	25.493	13.664	29537	12	5.849	19.100	29611	8	20.272	23.805
29390	8	14.746	8.406	29464	25	25.739	13.954	29538	8	9.268	19.996	29612	17	20.308	23.178
29391	8	15.418	8.018	29465	17	0.654	14.653	29539	9	11.206	19.870	29613	17	21.221	23.090
29392	11	16.142	8.437	29466	8	0.697	14.912	29540	26	11.860	19.458	29614	8	21.434	23.034
29393	8	17.512	8.896	29467*	26	2.389	14.236	29541	18	11.954	19.954	29615	8	23.618	23.546
29394	11	22.863	8.149	29468	11	5.966	14.940	29542	9	16.075	19.555	29616	8	2.184	24.659
29395	12	0.580	9.388	29469*	21	8.976	14.110	29543	11	18.265	19.234	29617*	48	2.615	24.352
29396	9	0.651	9.550	29470	8	9.908	14.784	29544	15	18.796	19.963	29618*	37	2.630	24.998
29397	8	3.248	9.676	29471	8	11.062	14.327	29545	12	19.557	19.188	29619	8	5.878	24.080
29398	9	5.410	9.654	29472	8	15.500	14.970	29546	8	20.654	19.340	29620	8	6.316	24.039
29399	8	5.732	9.700	29473	10	15.579	14.013	29547	9	21.972	19.090	29621	8	6.479	24.180
29400	8	6.146	9.798	29474	9	17.518	14.890	29548	11	2.090	20.780	29622	11	7.010	24.522
29401	26	7.278	9.955	29475	11	17.710	14.809	29549	8	2.381	20.651	29623	8	9.042	24.310
29402	8	9.450	9.079	29476*	27	17.962	14.476	29550	11	3.762	20.525	29624	10	12.300	24.160
29403	10	14.001	9.006	29477*	31	24.792	14.368	29551	8	3.970	20.638	29625	10	16.149	24.904
29404	11	15.970	9.029	29478	11	25.655	14.664	29552	13	7.724	20.150	29626	8	16.221	24.507
29405	8	21.042	9.424	29479	9	4.676	15.590	29553	20	10.650	20.850	29627	23	20.300	24.290
29406	13	21.454	9.490	29480	9	5.520	15.694	29554*	19	12.564	20.162	29628	12	20.420	24.299
29407	11	22.580	9.544	29481	10	7.905	15.624	29555	8	14.944	20.736	29629	16	20.870	24.413
29408	8	2.824	10.934	29482	8	9.486	15.085	29556	9	17.619	20.030	29630	13	22.506	24.106
29409	8	4.919	10.316	29483	8	10.756	15.841	29557	28	18.820	20.540	29631	13	22.688	24.020
29410	12	6.225	10.915	29484*	18	11.256	15.837	29558*	10	19.010	20.468	29632	9	25.132	24.798
29411	9	12.784	10.627	29485	8	13.021	15.929	29559	10	19.950	20.360	29633	8	1.239	25.962
29412	11	16.788	10.755	29486	21	16.608	15.365	29560*	29	21.094	20.272	29634	8	7.882	25.718
29413	8	16.870	10.764	29487	12	19.192	15.546	29561	11	23.054	20.024	29635	16	9.236	25.430
29414	9	17.800	10.955	29488	27	1.632	16.524	29562	8	1.818	21.306	29636	22	15.332	25.082
29415	8	19.176	10.930	29489	8	1.723	16.140	29563	8	3.869	21.684	29637	8	20.474	25.202
29416	8	19.207	10.349	29490	11	1.882	16.781	29564	14	4.417	21.030	29638	8	21.076	25.860
29417	9	21.074	10.636	29491	9	1.905	16.957	29565	13	4.425	21.828				
29418	11	21.112	10.220	29492	10	4.790	16.906	29566	13	6.580	21.432				
29419	8	24.439	10.813	29493	11	5.392	16.839	29567	14	7.116	21.936				
29420	8	0.250	11.985	29494	9	6.786	16.253	29568	10	7.350	21.508				
29421	11	1.312	11.366	29495	17	17.230	16.440	29569	8	10.520	21.082				
29422	8	4.319	11.569	29496	29	17.534	16.477	29570	12	10.876	21.270				
29423	8	4.729	11.469	29497	8	23.010	16.700	29571	8	12.768	21.526				
29424	15	5.206	11.987	29498	8	24.587	16.320	29572	10	14.034	21.900				
29425	10	6.496	11.088	29499	8	0.343	17.054	29573	20	21.900	21.088				
29426	8	9.602	11.296	29500	11	1.732	17.060	29574	22	21.986	21.359				
29427*	27	10.431	11.372	29501	9	4.576	17.198	29575	30	23.518	21.536				
29428	13	11.259	11.500	29502	8	4.855	17.789	29576	30	24.242	21.840				
29429	12	11.978	11.207	29503	9	7.043	17.705	29577	8	3.110	22.214				



**R.A. 9<sup>h</sup> 56<sup>m</sup>**

Plate 469; 1915 Feb. 9.

*Provisional Constants.*

A	B	C
-01756	+00565	-2145

D	E	F
-00522	-01753	+0226

*Mag. = 15.9 - 1.09√d*

No.	d	x	y
29650	11	1.310	0.652
29651	10	4.794	0.816
29652	33	5.722	0.809
29653	23	6.032	0.754
29654	13	6.344	0.883
29655	11	10.234	0.718
29656	13	11.333	0.556
29657	14	11.357	0.545
29658	38	14.542	0.885
29659	30	3.040	1.386
29660*	78	3.719	1.534
29661	12	5.634	1.594
29662	16	6.260	1.503
29663	17	6.806	1.776
29664	16	9.032	1.164
29665*	59	11.142	1.234
29666	10	13.238	1.498
29667	24	14.170	1.165
29668	37	16.651	1.766
29669	24	16.786	1.136
29670*	36	17.711	1.933
29671	31	20.582	1.215
29672	27	23.155	1.596
29673	18	24.606	1.113
29674	21	3.151	2.786
29675	10	5.013	2.664
29676	11	10.160	2.354
29677	25	13.583	2.022
29678	19	14.152	2.096
29679	23	22.506	2.214
29680	15	1.536	3.377
29681	13	5.986	3.231
29682	19	8.453	3.972
29683	8	10.855	3.724
29684	26	16.324	3.654
29685	18	16.343	3.207
29686	14	19.234	3.826
29687	22	19.766	3.975
29688*	50	2.506	4.258
29689	25	4.144	4.327
29690	8	6.527	4.964
29691	15	7.199	4.715
29692	28	9.672	4.555
29693	10	11.324	4.154
29694	12	15.167	4.470
29695	8	16.576	4.905
29696	11	20.653	4.195
29697	15	25.596	4.533
29698	16	2.628	5.326
29699	11	2.736	5.337
29700	24	3.044	5.062
29701	14	6.253	5.244
29702	22	6.266	5.870
29703	10	6.294	5.287
29704	8	10.168	5.811
29705	12	16.123	5.966
29706	16	18.331	5.214
29707	17	18.438	5.332
29708	22	20.320	5.104
29709	8	20.634	5.658
29710	16	20.800	5.887
29711	12	20.823	5.728
29712	22	21.411	5.722
29713	15	4.701	6.660
29714	36	5.659	6.916
29715	8	6.102	6.806
29716	16	0.726	6.697
29717	16	8.302	6.604
29718	18	13.276	6.682
29719	30	15.444	6.946
29720	56	25.022	6.424
29721	22	2.286	7.464
29722	12	3.496	7.590
29723	30	4.143	7.333
29724	17	5.254	7.748
29725	12	11.198	7.979
29726	8	13.729	7.087
29727	17	16.064	7.767
29728	16	19.742	7.416
29729	10	22.688	7.745
29730	16	0.248	8.206
29731	10	4.455	8.310
29732	14	8.672	8.057
29733	12	9.714	8.136
29734	16	17.506	8.752
29735	20	19.262	8.814
29736*	35	19.277	8.714
29737	21	20.476	8.225
29738	8	24.846	8.864
29739	10	4.305	9.171
29740	8	5.387	9.138
29741	8	8.699	9.076
29742	10	10.930	9.547
29743	8	14.087	9.402
29744	13	16.074	9.080
29745	12	19.145	9.094
29746	9	19.564	9.296
29747*	60	19.834	9.150
29748	8	20.314	9.333
29749	8	21.261	9.062
29750	16	22.686	9.654
29751	24	23.896	9.512
29752	23	24.636	9.144
29753	16	25.113	9.144
29754	14	1.856	10.854
29755	15	6.464	10.874
29756	12	6.504	10.793
29757	9	8.656	10.537
29758	15	11.254	10.285
29759*	59	15.025	10.968
29760	9	17.906	10.876
29761	24	20.436	10.694
29762*	28	21.591	10.256
29763	13	21.855	10.886
29764	24	22.270	10.682
29765	15	3.260	11.202
29766	17	6.360	11.654
29767	14	6.696	11.334
29768	11	9.358	11.672
29769	8	11.367	11.482
29770*	38	14.549	11.367
29771	12	14.586	11.360
29772	15	15.324	11.260
29773	15	17.324	11.314
29774	36	19.914	11.786
29775	8	21.026	11.082
29776	13	23.644	11.772
29777	17	0.256	12.684
29778*	38	1.264	12.656
29779	11	1.356	12.234
29780	32	3.304	12.346
29781	16	3.314	12.116
29782	8	3.952	12.164
29783	16	8.924	12.397
29784	12	12.633	12.207
29785	15	15.194	12.724
29786	32	20.810	12.557
29787	15	1.762	13.014
29788	12	2.944	13.694
29789	15	2.945	13.388
29790	29	3.194	13.977
29791	8	5.398	13.604
29792	13	7.884	13.000
29793	17	13.664	13.145
29794	31	13.794	13.617
29795	7	13.943	13.714
29796	13	16.712	13.268
29797	17	18.685	13.166
29798	21	19.224	13.270
29799	10	19.422	13.318
29800	15	20.068	13.396
29801	8	21.026	13.496
29802	16	25.448	13.353
29803	10	25.537	13.792
29804	8	1.285	14.198
29805*	36	2.246	14.403
29806	15	3.033	14.693
29807	9	7.800	14.426
29808	8	8.378	14.120
29809	16	10.724	14.460
29810*	42	10.935	14.600
29811	21	11.186	14.426
29812	14	13.545	14.602
29813	17	14.061	14.013
29814	12	19.230	14.273
29815	14	21.517	14.293
29816	12	21.770	14.766
29817	10	21.919	14.922
29818	13	23.244	14.335
29819	10	23.582	14.336
29820	16	24.994	14.277
29821	30	25.620	14.415
29822	14	25.824	14.015
29823	11	5.632	15.156
29824	7	8.817	15.858
29825	33	10.745	15.247
29826	16	12.756	15.574
29827	10	14.596	15.965
29828	22	14.748	15.725
29829	8	20.574	15.546
29830	8	21.919	15.545
29831	10	2.066	16.356
29832	19	5.469	16.053
29833	12	7.282	16.799
29834	8	8.047	16.726
29835	7	9.017	16.271
29836	11	9.464	16.626
29837	9	9.486	16.173
29838	18	10.614	16.542
29839	8	11.185	16.443
29840*	56	11.557	16.866
29841	8	13.555	16.555
29842	12	16.838	16.452
29843	8	20.626	16.804
29844	17	25.114	16.494
29845	11	1.784	17.619
29846	8	2.093	17.613
29847	9	2.104	17.044
29848	23	2.271	17.787
29849	31	2.668	17.956
29850	16	8.938	17.456
29851	15	9.291	17.344
29852	7	11.744	17.198
29853	8	14.924	17.143
29854	11	18.614	17.490
29855	36	18.756	17.597
29856	20	19.372	17.934
29857	15	20.666	17.982
29858	18	22.662	17.680
29859	21	22.952	17.746
29860	10	0.954	18.648
29861	8	1.900	18.320
29862	16	3.572	18.267
29863	34	7.371	18.006
29864	16	8.650	18.187
29865	11	8.879	18.056
29866	25	8.882	18.401
29867	7	10.356	18.546
29868	17	12.430	18.054
29869	8	15.671	18.036
29870	39	16.168	18.743
29871	8	16.386	18.004
29872	20	18.543	18.933
29873	32	23.394	18.226
29874*	66	23.421	18.060
29875	19	25.620	18.824
29876	24	25.664	18.080
29877	8	2.931	19.656
29878	22	5.870	19.538
29879	25	5.924	19.662
29880	14	7.666	19.434
29881	16	7.949	19.855
29882	9	12.200	19.167
29883	16	12.494	19.893
29884	19	12.950	19.591
29885	26	18.926	19.022
29886*	80	21.828	19.982
29887	108	21.900	19.985
29888	13	0.576	20.082
29889	13	5.322	20.214
29890	11	5.360	20.786
29891	15	10.833	20.565
29892	13	11.298	20.868
29893	36	12.315	20.230
29894	7	12.683	20.652
29895	14		



30016	11	7.400	5.778	30090	9	25.497	13.894	30164	8	13.265	23.352	30232	10	23.886	3.494	30306	17	21.208	12.268
30017	15	16.746	5.490	30091	8	25.866	13.434	30165	8	15.818	23.265	30233	21	5.235	4.997	30307	10	21.443	12.040
30018	55	18.808	5.966	30092	8	0.790	14.250	30166	8	18.438	23.335	30234	14	5.994	4.894	30308	24	23.274	12.034
30019*	49	2.524	6.320	30093	9	2.540	14.180	30167	14	0.070	24.200	30235	24	8.216	4.244	30309	16	24.096	12.348
30020	10	3.908	6.104	30094	24	3.170	14.314	30168	8	11.901	24.346	30236*	36	11.537	4.112	30310	11	25.704	12.344
30021	21	6.316	6.918	30095	8	5.439	14.952	30169	11	11.954	24.320	30237	21	12.248	4.075	30311	10	2.096	13.483
30022	8	8.295	6.858	30096	8	6.300	14.539	30170*	32	12.385	24.545	30238	12	13.973	4.554	30312	12	3.360	13.552
30023	8	12.724	6.778	30097	8	9.220	14.531	30171	9	18.116	24.911	30239	17	23.046	4.312	30313	13	9.464	13.354
30024	8	12.830	6.900	30098*	40	19.772	14.281	30172	8	19.330	24.299	30240	19	24.556	5.976	30314	13	11.686	13.484
30025	8	18.054	6.080	30099	8	20.546	14.287	30173	26	20.903	24.674	30241	13	12.178	6.860	30315	19	12.634	13.306
30026	8	19.855	6.906	30100	12	21.231	14.600	30174	12	25.498	24.710	30242	16	21.626	6.023	30316	8	13.174	13.702
30027*	11	21.850	6.080	30101	9	8.511	15.730	30175	8	0.270	25.063	30243	25	25.312	6.586	30317*	36	15.040	13.025
30028*	27	23.066	6.974	30102	18	8.610	15.128	30176	26	0.386	25.740	30244	36	0.414	7.156	30318*	29	17.957	13.054
30029	8	25.908	6.980	30103	8	15.016	15.116	30177	12	2.813	25.721	30245	34	1.005	7.603	30319	21	20.867	13.835
30030	19	3.850	7.878	30104	8	18.430	15.536	30178	56	17.774	25.690	30246	17	3.253	7.105	30320	22	21.565	13.372
30031*	23	6.412	7.088	30105	9	25.060	15.700	30179	12	20.018	25.394	30247	14	3.324	7.944	30321	23	22.206	13.073
30032	27	7.588	7.176	30106	8	3.573	16.160	30180	12	22.282	25.850	30248	11	4.456	7.766	30322	40	25.043	13.580
30033	11	7.995	7.340	30107	8	24.013	16.271					30249	15	4.795	7.446	30323	19	1.965	14.542
30034	8	12.085	7.222	30108	11	0.228	17.590					30250	18	9.139	7.254	30324	14	5.876	14.383
30035	10	13.527	7.609	30109	13	0.518	17.658					30251	8	10.866	7.544	30325	14	6.174	14.064
30036	14	20.476	7.518	30110*	51	0.982	17.970					30252	23	11.424	7.142	30326	12	9.046	14.405
30037	23	23.648	7.430	30111	21	3.232	17.980					30253	43	25.388	7.174	30327	18	9.666	14.359
30038	8	25.956	7.822	30112	8	7.790	17.345					30254	30	0.220	8.562	30328	19	11.549	14.692
30039*	60	8.100	8.488	30113	11	10.660	17.930					30255	12	0.368	8.076	30329	24	19.514	14.176
30040	16	9.662	8.977	30114	8	10.740	17.842					30256	35	2.568	8.713	30330	10	21.181	14.820
30041	19	14.672	8.114	30115	8	11.588	17.817					30257	18	3.284	8.585	30331	15	2.600	15.836
30042	9	15.870	8.416	30116	10	12.546	17.760					30258	36	5.244	8.854	30332	11	6.332	15.754
30043*	28	22.844	8.372	30117	8	16.174	17.790					30259	14	6.209	8.222	30333	10	7.227	15.553
30044	29	25.193	8.575	30118	9	17.970	17.748					30260	12	9.918	8.946	30334	25	13.352	15.464
30045	8	25.904	8.464	30119	11	19.484	17.950					30261	13	11.024	8.926	30335*	34	14.228	15.264
30046	8	0.209	9.562	30120	22	22.340	17.810					30262	16	11.156	8.956	30336	14	17.106	15.175
30047	12	1.420	9.420	30121	26	0.963	18.133					30263	16	11.567	8.626	30337	21	21.807	15.104
30048	12	2.157	9.044	30122	12	3.192	18.720					30264	12	12.344	8.970	30338	13	23.598	15.406
30049	23	5.753	9.666	30123	25	7.505	18.490					30265	15	13.384	8.115	30339	11	25.065	15.174
30050	8	5.451	9.700	30124	8	7.744	18.094					30266	16	16.696	8.941	30340	10	25.505	15.544
30051	11	6.615	9.152	30125	8	8.500	18.900					30267	9	1.496	9.916	30341	14	1.566	16.426
30052	15	9.685	9.403	30126	10	9.702	18.684					30268	19	4.720	9.474	30342	20	12.348	16.920
30053	8	14.112	9.499	30127	8	15.126	18.432					30269	15	9.476	9.966	30343	9	14.055	16.904
30054	13	17.224	9.695	30128	13	19.300	18.594					30270	13	11.856	9.603	30344	25	14.204	16.360
30055	8	20.992	9.170	30129*	31	19.536	18.488					30271	13	14.438	9.485	30345	8	14.318	16.356
30056	16	4.937	10.588	30130	8	23.873	18.424					30272	8	15.685	9.450	30346	20	19.624	16.406
30057	12	6.018	10.880	30131	25	7.854	19.600					30273	11	19.004	9.490	30347	22	19.890	16.396
30058	8	7.072	10.942	30132	8	15.920	19.200					30274	8	20.741	9.168	30348	14	20.218	16.945
30059	8	8.193	10.431	30133	8	21.156	19.516					30275	10	21.896	9.111	30349	34	21.523	16.466
30060	12	8.406	10.733	30134	11	22.210	19.947					30276*	35	22.974	9.906	30350	8	0.024	17.423
30061	9	8.574	10.354	30135	10	0.694	20.502					30277	13	23.504	9.552	30351	13	4.326	17.864
30062	8	10.121	10.532	30136	19	4.216	20.994					30278	11	23.524	9.714	30352*	34	5.606	17.486
30063	8	11.292	10.646	30137	10	4.341	20.958					30279*	36	23.746	9.707	30353	13	14.408	17.784
30064	8	15.424	10.371	30138	13	5.958	20.798					30280	36	25.523	9.672	30354	8	16.309	17.844
30065	9	6.456	11.264	30139	23	6.579	20.094					30281	17	13.906	10.357	30355	10	24.035	17.922
30066*	24	8.136	11.420	30140	16	7.174	20.122					30282	16	22.592	10.126	30356	13	1.476	18.584
30067	8	11.370	11.672	30141	8	8.072	20.512					30283	19	24.146	10.389	30357	24	4.120	18.815
30068	8	15.510	11.470	30142	8	10.092	20.274					30284	11	24.524	10.338	30358	9	6.702	18.608
30069	10	17.132	11.260	30143	8	13.454	20.154					30285	8	1.057	11.036	30359	23	6.832	18.397
30070	8	20.529	11.464	30144	9	13.516	20.040					30286	14	1.457	11.824	30360	12	8.854	18.550
30071	11	5.324	12.157	30145*	26	13.861	20.790					30287	10	4.784	11.804	30361	10	9.658	18.427
30072*	53	7.404	12.079	30146*	44	14.081	20.230					30288*	36	11.116	11.709	30362	12	13.416	18.403
30073*	41	7.962	12.550	30147	8	22.786	20.165					30289	18	12.699	11.436	30363	9	15.814	18.534
30074*	27	9.378	12.440	30148	17	0.616	21.469					30290	10	13.152	11.944	30364	11	19.077	18.995
30075	8	9.819	12.066	30149*	30	1.584	21.130					30291	11	14.706	11.783	30365	12	23.963	18.423
30076	8	18.670	12.561	30150	8	2.146	21.933					30292	19	19.574	11.902	30366*	76	24.975	18.176
30077	8	20.310	12.389	30151	10	9.131	21.166					30293*	33	19.803	11.585	30367	9	3.275	19.687
30078	12	22.805	12.286	30152	19	15.035	21.793					30294	11	20.262	11.205	30368*	34	5.726	19.042
30079	8	2.994	13.252	30153	13	15.058	21.919					30295	20	22.346	11.554	30369	13	13.345	19.346
30080	8	3.374	13.914	30154*	22	15.347	21.719					30296	20	22.894	11.898	30370	11	13.436	19.865
30081	11	7.927	13.800	30155	20	19.354	21.236					30297	26	23.956	11.568	30371	9	17.092	19.716
30082	8	7.734	13.886	30156*	29	19.934	21.971					30298	15	24.369	11.790	30372*	47	18.918	19.664
30083	8	15.183	13.344	30157	11	20.216	21.568					30299	12	25.296	11.924	30373	28	21.460	19.205
30084	8	15.474	13.656	30158	25	0.496	22.088												



30380	9	22.856	21.497	30463	12	21.516	1.364	30537*	44	19.852	11.686	30611	8	13.050	23.547	30677	18	8.996	4.642
30381	8	0.044	22.592	30464*	30	3.486	2.920	30538	8	20.107	11.578	30612*	46	15.668	23.742	30678	15	10.765	4.824
30382	12	11.056	22.954	30465	15	4.636	2.179	30539	10	20.520	11.685	30613	10	23.120	23.031	30679	16	15.546	4.056
30383*	46	12.754	22.200	30466	10	13.154	2.853	30540	10	23.330	11.736	30614	13	2.130	24.257	30680	14	19.394	4.275
30384	22	19.242	22.723	30467*	40	15.956	2.567	30541	29	25.798	11.279	30615	26	7.040	24.532	30681	16	19.796	4.020
30385	20	21.728	22.612	30468	11	25.256	2.790	30542	14	0.426	12.354	30616	17	19.811	24.787	30682	13	20.330	4.385
30386	13	25.864	22.166	30469	31	0.348	3.714	30543	12	0.805	12.485	30617	13	20.234	24.470	30683	16	2.074	5.416
30387	9	0.888	23.676	30470*	30	0.846	3.705	30544	13	1.492	12.015	30618	8	20.602	24.852	30684	28	6.466	5.694
30388	8	2.912	23.659	30471	16	3.752	3.394	30545	13	1.632	12.796	30619	14	20.889	24.414	30685	36	18.194	5.590
30389	17	6.804	23.512	30472	8	3.980	3.178	30546	11	1.904	12.229	30620	16	21.872	24.410	30686	14	6.070	6.379
30390	15	7.304	23.027	30473	12	5.904	3.532	30547*	26	5.964	12.810	30621	15	21.950	24.814	30687	23	8.226	6.606
30391*	34	9.868	23.585	30474	8	14.074	3.814	30548	8	7.404	12.458	30622	9	22.928	24.116	30688	31	10.474	6.964
30392	16	14.708	23.572	30475	11	14.335	3.823	30549	13	9.249	12.822	30623	8	24.070	24.894	30689	35	11.623	6.144
30393*	36	15.198	23.997	30476*	21	14.914	3.906	30550*	18	10.248	12.296	30624	16	0.146	25.012	30690*	78	12.485	6.174
30394	15	21.514	23.507	30477	9	16.800	3.452	30551	12	13.177	12.344	30625	12	1.412	25.751	30691	15	12.926	6.775
30395	22	24.512	23.814	30478	8	22.200	3.546	30552	8	18.640	12.944	30626	27	4.144	25.466	30692	17	14.106	6.138
30396	21	0.099	24.295	30479	11	0.529	4.764	30553	8	23.631	12.660	30627	22	4.494	25.627	30693	17	15.448	6.457
30397	10	2.578	24.312	30480	12	7.480	4.914	30554	12	3.677	13.220	30628	24	8.358	25.126	30694	14	19.476	6.666
30398*	24	3.244	24.834	30481	8	8.182	4.275	30555	8	5.557	13.078	30629	16	20.402	25.182	30695	34	22.016	6.947
30399	17	6.754	24.884	30482	15	10.028	4.248	30556*	30	6.214	13.872	30630	15	20.560	25.892	30696	20	22.434	6.234
30400	11	9.227	24.206	30483*	112	16.326	4.854	30557	8	16.574	13.441	30631	18	21.140	25.986	30697	24	3.274	7.957
30401	16	9.822	24.695	30484	10	2.386	5.457	30558*	30	18.731	13.988	30632	28	25.326	25.360	30698*	58	9.312	7.626
30402	15	13.507	24.542	30485*	25	7.623	5.080	30559	18	20.944	13.630					30699	19	10.324	7.592
30403	31	14.504	24.448	30486	8	11.352	5.796	30560*	33	2.585	14.018					30700	11	14.666	7.849
30404	26	14.534	24.787	30487	18	14.100	5.125	30561	8	5.076	14.072					30701	8	22.736	7.485
30405	9	16.845	24.980	30488	12	16.674	5.940	30562	8	8.139	14.130					30702	14	1.352	8.979
30406	22	18.595	24.812	30489	8	17.507	5.675	30563	24	9.593	14.004					30703*	36	3.004	8.356
30407	21	22.524	24.556	30490	8	18.290	5.938	30564	10	15.724	14.448					30704	15	3.926	8.097
30408	44	4.152	25.800	30491*	30	19.165	5.575	30565	9	16.852	14.984					30705	8	16.076	8.066
30409	30	4.196	25.492	30492*	24	20.298	5.659	30566	9	17.142	14.249					30706	14	19.166	8.124
30410	30	17.271	25.898	30493	8	22.804	5.752	30567*	32	17.554	14.980					30707*	68	19.966	8.933
30411	11	17.314	25.112	30494	10	2.049	6.424	30568	8	1.156	15.853					30708	12	20.974	8.337
30412	31	19.258	25.649	30495	8	12.786	6.156	30569	8	2.620	15.610					30709	18	1.318	9.314
30413	13	23.610	25.610	30496	8	17.275	6.156	30570	9	3.064	15.980					30710	21	3.244	9.558
30414	14	23.706	25.598	30497	8	20.386	6.860	30571	8	13.084	15.420					30711	15	4.586	9.636
30415	16	23.784	25.310	30498	8	0.408	7.200	30572*	39	17.070	15.622					30712	10	9.568	9.256
				30499	14	2.810	7.020	30573*	37	17.648	15.982					30713	11	9.974	9.436
				30500*	25	2.890	7.609	30574	8	9.248	16.748					30714	36	13.204	9.838
				30501	15	3.862	7.733	30575	8	9.927	16.670					30715	13	13.437	9.272
				30502	10	6.474	7.816	30576	9	18.713	16.220					30716	13	14.260	9.166
				30503	8	7.662	7.424	30577	9	19.958	16.694					30717	17	18.188	9.572
				30504	11	8.362	7.761	30578	13	21.210	16.828					30718	20	22.567	9.812
				30505	11	8.704	7.820	30579	8	23.510	16.780					30719	28	2.824	10.723
				30506	15	10.870	7.592	30580	8	17.722	17.069					30720	12	7.502	10.586
				30507	12	13.724	7.858	30581	17	25.815	17.043					30721	15	8.860	10.880
				30508*	38	22.265	7.748	30582*	78	2.543	18.613					30722	13	12.038	10.236
				30509	13	25.679	7.880	30583	8	12.889	18.368					30723	40	17.574	10.406
				30510	13	5.095	8.025	30584	10	15.528	18.478					30724	9	20.501	10.366
				30511	8	23.200	8.890	30585	11	15.744	18.771					30725	14	23.247	10.432
				30512	26	25.410	8.276	30586	9	16.702	18.400					30726	24	0.954	11.834
				30513	20	4.106	9.630	30587	9	4.672	19.813					30727	12	2.340	11.858
				30514	8	7.949	9.140	30588*	74	4.954	19.162					30728*	38	3.421	11.356
				30515	12	11.493	9.975	30589	19	5.889	19.961					30729	13	7.475	11.674
				30516	20	19.100	9.456	30590	8	6.811	19.076					30730	40	20.326	11.737
				30517	11	23.718	9.220	30591	11	10.709	19.219					30731*	44	21.152	11.006
				30518	8	24.412	9.616	30592	14	18.166	19.896					30732	17	24.674	11.637
				30519	14	25.636	9.478	30593	8	20.778	19.123					30733	30	12.646	12.716
				30520	10	0.112	10.586	30594	12	21.217	19.043					30734	15	14.509	12.536
				30521	24	0.494	10.358	30595	10	5.095	20.150					30735	12	20.088	12.974
				30522*	30	1.264	10.156	30596	9	5.315	20.033					30736	14	21.696	12.532
				30523	13	1.670	10.837	30597	19	18.700	20.802					30737	24	23.776	12.541
				30524*	27	3.037	10.106	30598	8	4.260	21.150					30738	24	24.887	12.463
				30525	12	5.524	10.786	30599	10	4.353	21.725					30739	14	1.693	13.613
				30526	14	7.032	10.490	30600	11	4.662	21.692					30740	16	4.403	13.364
				30527	8	9.325	10.972	30601	11	4.776	21.144					30741*	56	8.036	13.592
				30528*	25	9.470	10.960	30602	11	5.484	21.471					30742	24	8.376	13.114
				30529	12	11.466	10.852	30603	8	11.394	21.737					30743	17	12.504	13.271
				30530	10	12.868	10.678	30604	9	11.724	21.200					30744	13	19.669	13.439
				30531	13	16.567	10.250	30605*	47	19.414	21.598					30745	17	21.268	13.102
				30532	9	17.322	10.010	30606*	70	20.216	21.945					30746	21	5.556	14.343
				30533*	34	20.982	10.256	30607	14	6.590	22.201					30747*	36	5.884	14.716
				30534	14	25.207	10.640	30608	15	15.635	22.765					30748	11	8.597	14.956
				30535*	37	11.090	11.986	30609	20	6.917	2								



30751	20	17.784	14.214	30825	20	0.662	24.215	30880	8	5.208	3.942	30954	8	5.850	19.128	31011	12	9.186	1.866
30752	33	21.300	14.802	30826	14	4.415	24.996	30881*	37	8.769	3.552	30955	10	11.263	19.490	31012	8	9.708	1.178
30753	14	21.786	14.415	30827	26	5.076	24.186	30882	8	16.037	4.430	30956*	36	0.716	20.098	31013	11	11.204	1.138
30754	20	5.906	15.492	30828	13	7.038	24.462	30883	11	18.775	4.400	30957	8	14.790	20.784	31014	18	11.274	1.046
30755	11	6.893	15.916	30829	34	9.568	24.864	30884	19	19.154	4.246	30958	14	17.860	20.141	31015	15	13.214	1.726
30756	8	10.088	15.127	30830	24	9.844	24.286	30885*	80	6.250	5.180	30959	8	18.841	20.780	31016	23	14.350	1.782
30757	34	12.014	15.600	30831	23	10.426	24.396	30886	11	8.208	5.104	30960	11	18.864	20.488	31017	8	17.330	1.767
30758	14	16.637	15.456	30832	13	11.716	24.378	30887	16	25.004	5.136	30961	8	2.636	21.718	31018*	36	18.188	1.563
30759	33	17.136	15.826	30833	18	15.166	24.984	30888	8	12.413	6.841	30962*	37	7.704	21.170	31019	15	19.499	1.700
30760	13	21.386	15.957	30834	30	16.006	24.030	30889	8	16.964	6.610	30963	9	10.700	21.152	31020	43	20.020	1.728
30761	16	3.854	16.670	30835	38	22.124	24.830	30890	15	25.104	6.522	30964	8	10.726	21.370	31021	22	22.334	1.246
30762	11	4.083	16.764	30836	28	1.776	25.614	30891	10	13.096	7.736	30965	15	15.650	21.664	31022*	53	23.386	1.165
30763	22	4.822	16.804	30837*	38	3.067	25.434	30892	11	3.219	8.856	30966	8	18.146	21.600	31023	8	23.394	1.934
30764*	46	5.922	16.936	30838	19	7.244	25.864	30893	9	13.396	8.699	30967	13	20.628	21.736	31024	9	23.697	2.433
30765	11	6.924	16.904	30839	22	8.855	25.234	30894	8	18.734	8.600	30968	9	20.642	21.897	31025	8	0.386	3.616
30766*	35	10.792	16.836	30840	34	13.233	25.594	30895*	25	19.614	8.228	30969	10	7.457	22.810	31026	8	0.864	3.801
30767*	58	15.936	16.402	30841	28	13.894	25.424	30896*	19	20.162	8.736	30970	8	9.437	22.546	31027	8	3.434	3.110
30768*	40	16.174	16.148	30842	8	14.938	25.418	30897	18	3.610	9.002	30971	16	11.686	22.150	31028*	58	4.666	3.050
30769	21	3.486	17.118	30843*	80	20.970	25.122	30898*	36	7.184	9.384	30972	10	15.034	22.864	31029	8	6.704	3.869
30770	12	4.196	17.395					30899	8	8.170	9.862	30973	9	18.839	22.158	31030	31	12.802	3.096
30771	13	10.426	17.946					30900*	35	16.584	9.498	30974*	46	1.265	23.019	31031	28	15.085	3.823
30772	20	11.686	17.186					30901	19	24.062	9.330	30975	20	2.368	23.226	31032	8	15.401	3.626
30773	12	12.014	17.347					30902	8	6.182	10.126	30976*	45	8.272	23.612	31033	8	17.846	3.610
30774	29	17.526	17.324					30903*	30	6.264	10.861	30977	10	9.029	23.106	31034	8	18.686	3.258
30775	11	19.234	17.559					30904*	38	16.492	10.307	30978	14	14.306	23.658	31035	38	20.434	3.557
30776	36	20.550	17.634					30905	8	17.292	10.664	30979	8	2.510	24.772	31036	8	21.136	3.697
30777	23	22.436	17.785					30906	13	22.033	10.642	30980	23	4.558	24.314	31037	8	22.506	3.963
30778	14	24.416	17.726					30907	8	1.852	11.740	30981	10	9.115	24.230	31038	13	23.147	3.912
30779	13	5.399	18.368					30908	8	3.311	11.866	30982	11	12.402	24.993	31039	9	1.494	4.328
30780	22	12.418	18.155					30909	46	25.136	11.474	30983	9	17.635	24.178	31040	9	1.526	4.022
30781	14	12.697	18.314					30910	13	0.960	12.650	30984*	42	17.720	24.652	31041	8	1.730	4.555
30782	8	16.614	18.554					30911	10	2.073	12.558	30985	8	19.485	24.052	31042	25	2.585	4.832
30783	16	18.084	18.874					30912*	38	10.210	12.348	30986	8	4.248	25.482	31043	10	7.771	4.234
30784	10	24.570	18.754					30913	19	10.776	12.433	30987	17	7.554	25.241	31044	11	11.486	4.558
30785	11	25.846	18.794					30914	8	12.796	12.224	30988	9	10.504	25.348	31045	20	11.681	4.216
30786	22	6.284	19.768					30915	11	13.538	12.696	30989	8	10.741	25.593	31046	8	12.763	4.340
30787	12	9.480	19.788					30916*	21	14.661	12.768	30990	25	11.908	25.643	31047	13	15.682	4.968
30788	22	9.904	19.204					30917	36	22.465	12.719	30991	10	17.459	25.181	31048	13	16.230	4.890
30789	21	15.651	19.934					30918	12	23.101	12.912					31049	14	16.872	4.252
30790	14	16.972	19.836					30919*	26	7.770	13.496					31050	9	17.584	4.684
30791	16	18.226	19.066					30920	8	7.800	13.980					31051	8	0.606	5.222
30792	15	19.386	19.516					30921*	50	7.904	13.406					31052	12	4.808	5.864
30793*	36	23.464	19.986					30922	10	9.589	13.370					31053	22	7.627	5.350
30794	22	4.300	20.307					30923*	22	11.580	13.205					31054	22	14.666	5.614
30795	8	20.804	20.936					30924	8	14.848	13.168					31055	8	18.388	5.134
30796	13	3.183	21.020					30925*	32	17.800	13.228					31056*	44	24.510	5.190
30797*	56	3.936	21.472					30926	19	22.183	13.042					31057	21	2.695	6.208
30798*	36	14.225	21.814					30927	9	6.636	14.926					31058	8	7.188	6.696
30799	16	15.581	21.376					30928	8	7.321	14.330					31059	8	19.228	6.620
30800	14	4.686	22.056					30929	8	9.256	14.048					31060	8	23.221	6.202
30801	12	9.067	22.672					30930	14	16.976	14.398					31061*	62	23.364	6.306
30802	17	10.515	22.854					30931	8	4.476	15.428					31062	19	24.012	6.516
30803*	36	10.718	22.178					30932*	60	4.496	15.316					31063	8	1.188	7.550
30804	14	10.811	22.044					30933	8	9.900	15.284					31064	9	1.658	7.140
30805	15	11.300	22.747					30934*	55	17.806	15.103					31065*	39	4.388	7.324
30806	19	13.530	22.211					30935	8	18.515	15.046					31066	12	4.485	7.741
30807*	38	18.626	22.234					30936	9	20.166	15.671					31067	12	8.696	7.546
30808	18	18.874	22.266					30937	13	21.750	15.548					31068	8	12.191	7.543
30809	11	19.150	22.576					30938	10	23.056	15.578					31069	14	13.584	7.812
30810	16	19.324	22.190					30939*	52	3.757	16.336					31070	8	17.246	7.715
30811	38	19.896	22.486					30940	8	7.500	16.238					31071	38	17.778	7.058
30812	36	20.176	22.995					30941	8	7.501	16.065					31072	8	18.496	7.803
30813*	42	23.986	22.914					30942	12	8.749	16.634					31073	8	23.474	7.976
30814	19	0.843	23.131					30943	8	11.748	16.630					31074	8	7.009	8.587
30815	18	2.216	23.714					30944	8	19.150	16.632					31075	35	7.321	8.950
30816	12	7.144	23.344					30945	8	19.844	16.694					31076	8	8.020	8.558
30817*	40	8.700	23.424					30946*	55	6.305	17.075					31077	9	12.756	8.777
30818	20	9.054	23.738					30947	10	13.650	17.675					31078	23	12.798	8.207
30819	13	11.244	23.056					30948	8	15.738	17.108					31079	8	16.946	8.790
30820	8	11.422	23.124					30949	9	9.255	18.204					31080	8	24.631	8.122
30821	14	14.389	23.718					30950	10	10.342	18.132					31081	11	25.344	8.462
30822	18	15.156	23.855					30951	30	10.484	18.674					31082	12	1.368	9.226
30823	36	22.684	23.323																



31085	27	8.020	9.248	31159	8	20.544	15.460	31233*	80	19.096	21.597	31307	15	13.982	1.226	31381	17	23.894	10.720
31086	8	11.249	9.478	31160	8	20.932	15.778	31234	22	20.746	21.166	31308	10	24.755	1.114	31382	8	24.274	10.832
31087*	34	11.728	9.222	31161	16	22.088	15.807	31235	17	24.362	21.870	31309	10	24.956	1.814	31383	14	24.984	10.344
31088	13	12.046	9.102	31162*	29	23.488	15.134	31236	8	4.252	22.014	31310	9	3.376	2.126	31384	40	25.982	10.636
31089*	22	16.408	9.860	31163	8	25.518	15.676	31237	22	9.838	22.232	31311	37	13.433	2.067	31385	9	10.901	11.227
31090	15	19.236	9.595	31164	8	1.091	16.584	31238	10	10.858	22.349	31312	15	16.084	2.496	31386	8	11.978	11.548
31091*	66	24.214	9.244	31165	8	3.304	16.957	31239	13	13.068	22.818	31313	17	17.054	2.243	31387*	41	12.252	11.900
31092	8	24.555	9.074	31166	21	4.402	16.996	31240	29	15.494	22.437	31314	8	10.506	3.968	31388	9	13.949	11.991
31093	8	1.618	10.243	31167	9	9.044	16.210	31241	8	16.434	22.384	31315	12	10.738	3.733	31389	8	20.786	11.554
31094	13	4.558	10.904	31168	8	16.194	16.004	31242	17	18.808	22.270	31316	21	13.620	3.314	31390	8	24.901	11.040
31095	20	7.930	10.920	31169	8	22.144	16.560	31243	10	18.846	22.160	31317	22	14.776	3.147	31391	16	25.246	11.396
31096*	34	10.455	10.186	31170	10	23.526	16.200	31244	8	24.584	22.660	31318	18	15.244	3.913	31392	10	2.106	12.265
31097	9	11.290	10.862	31171	8	0.797	17.718	31245*	35	7.406	23.218	31319	8	15.813	3.262	31393	15	7.061	12.530
31098	13	13.875	10.784	31172	8	4.618	17.059	31246	11	7.752	23.894	31320	10	19.670	3.104	31394*	29	7.236	12.186
31099	8	23.316	10.948	31173	23	4.653	17.342	31247	15	8.172	23.082	31321	12	21.572	3.282	31395	20	16.652	12.554
31100	24	23.380	10.106	31174	18	6.389	17.071	31248	8	11.939	23.246	31322*	37	3.448	4.495	31396	8	17.478	12.230
31101	8	25.693	10.496	31175	8	6.727	17.090	31249*	44	13.784	23.785	31323*	21	5.294	4.014	31397	18	18.506	12.064
31102*	45	2.770	11.120	31176	9	8.238	17.776	31250	8	15.123	23.810	31324*	26	7.685	4.256	31398	8	19.206	12.894
31103	8	3.662	11.698	31177	22	9.438	17.674	31251	8	16.844	23.918	31325	12	8.400	4.478	31399	10	23.964	12.333
31104	8	3.898	11.467	31178	8	9.651	17.124	31252	8	4.458	24.644	31326*	40	1.782	5.944	31400	11	1.800	13.021
31105	11	5.663	11.057	31179	8	15.234	17.829	31253	8	10.874	24.792	31327	12	7.672	5.048	31401	8	4.300	13.270
31106	23	7.192	11.132	31180	22	15.536	18.498	31254	8	11.322	24.011	31328	8	9.136	5.795	31402	8	6.690	13.729
31107	10	7.312	11.548	31181	12	16.317	17.816	31255	16	11.445	24.250	31329*	20	13.718	5.963	31403	10	10.855	13.104
31108*	48	8.055	11.062	31182	12	17.118	17.008	31256	12	13.755	24.118	31330	12	15.894	5.515	31404	8	14.567	13.972
31109	8	11.580	11.868	31183	8	18.413	17.163	31257	8	13.868	24.116	31331	12	20.898	5.288	31405	14	16.482	13.980
31110	8	12.004	11.622	31184	23	19.400	17.839	31258	27	14.494	24.887	31332	8	21.864	5.910	31406	23	17.064	13.402
31111	8	12.225	11.730	31185*	35	20.442	17.784	31259	24	16.126	24.369	31333	37	25.464	5.476	31407*	62	19.334	13.884
31112	8	15.157	11.938	31186	8	25.041	17.040	31260	19	21.714	24.842	31334	55	25.525	5.846	31408	9	3.181	14.220
31113	11	17.776	11.544	31187	14	25.535	17.933	31261	10	7.136	25.813	31335	8	5.696	6.446	31409	14	7.923	14.784
31114*	45	19.192	11.702	31188	8	0.200	18.685	31262	19	8.157	25.326	31336	13	8.850	6.478	31410	15	17.854	14.546
31115	8	19.811	11.636	31189	12	5.628	18.237	31263	24	8.811	25.508	31337	18	12.563	6.634	31411	9	22.464	14.820
31116	8	20.256	11.152	31190*	37	6.351	18.384	31264	8	9.146	25.543	31338	14	12.727	6.638	31412*	21	22.519	14.886
31117	13	24.749	11.467	31191	11	9.338	18.590	31265	10	9.666	25.562	31339	8	14.471	6.514	31413*	20	0.882	15.976
31118	8	25.734	11.203	31192	10	13.088	18.430	31266	10	10.236	25.006	31340*	21	15.552	6.262	31414	11	3.798	15.224
31119	34	0.136	12.384	31193	8	13.920	18.279	31267	14	13.105	25.008	31341	13	17.770	6.822	31415	12	6.336	15.870
31120	20	0.770	12.568	31194	11	13.948	18.991	31268	9	14.714	25.916	31342*	42	0.640	7.084	31416*	21	10.792	15.290
31121	13	8.144	12.986	31195	11	14.204	18.806	31269	8	16.553	25.672	31343	13	1.302	7.286	31417	8	13.700	15.106
31122	18	8.870	12.854	31196	8	14.809	18.388	31270	8	19.293	25.516	31344	15	5.308	7.502	31418	12	13.749	15.676
31123	20	9.078	12.062	31197	8	15.384	18.492	31271	8	20.155	25.782	31345	8	11.424	7.580	31419	13	23.797	15.938
31124	8	13.856	12.985	31198*	41	17.284	18.395	31272	26	22.281	25.295	31346	12	14.780	7.950	31420	11	23.885	15.724
31125	8	13.900	12.050	31199	11	17.436	18.222	31273	52	23.095	25.145	31347*	23	19.310	7.864	31421	16	9.555	16.653
31126	10	14.699	12.662	31200	8	19.636	18.090	31274	8	25.220	25.046	31348	18	23.312	7.445	31422	20	19.325	16.150
31127	8	17.836	12.650	31201	14	19.835	18.620					31349	12	25.763	7.566	31423	8	21.939	16.604
31128	21	20.353	12.255	31202	29	21.560	18.444					31350	8	1.946	8.897	31424*	20	22.529	16.206
31129	15	20.485	12.357	31203	27	22.837	18.487					31351	20	7.428	8.462	31425	8	0.935	17.051
31130	13	24.436	12.213	31204	10	0.232	19.352					31352	11	7.758	8.588	31426	12	11.408	17.760
31131	12	24.454	12.321	31205	8	4.128	19.004					31353	8	15.763	8.818	31427	13	24.570	17.271
31132	8	24.890	12.973	31206	21	4.505	19.114					31354	13	18.666	8.574	31428	11	24.670	17.221
31133	8	5.191	13.118	31207	22	5.324	19.448					31355	20	19.156	8.945	31429	12	2.984	18.774
31134	9	5.432	13.291	31208	8	7.162	19.743					31356	11	21.024	8.026	31430	8	8.082	18.134
31135	24	7.550	13.395	31209	10	7.454	19.761					31357	20	24.497	8.576	31431*	30	12.062	18.401
31136	14	8.680	13.456	31210	24	8.211	19.890					31358	11	2.671	9.230	31432	11	15.242	18.872
31137	8	9.082	13.250	31211*	29	8.464	19.580					31359	8	4.836	9.086	31433	20	20.913	18.824
31138	11	11.559	13.136	31212	8	9.734	19.762					31360	8	5.095	9.286	31434	15	23.020	18.010
31139	9	13.649	13.080	31213	23	10.000	19.512					31361	10	8.804	9.435	31435	14	23.840	18.574
31140	8	19.557	13.824	31214	9	13.610	19.772					31362	21	10.041	9.575	31436	19	0.269	19.364
31141	11	20.060	13.458	31215	8	19.374	19.572					31363	10	10.884	9.106	31437	10	1.895	19.948
31142	8	22.846	13.116	31216	12	24.444	19.086					31364	8	11.854	9.649	31438	9	6.890	19.064
31143	8	25.788	13.418	31217	8	24.894	19.188					31365	9	15.426	9.218	31439	8	9.472	19.687
31144	8	0.806	14.916	31218	8	2.642	20.884					31366	11	17.552	9.078	31440	9	17.346	19.362
31145	8	8.484	14.706	31219	10	6.085	20.303					31367	8	19.194	9.878	31441	9	17.654	19.902
31146	17	10.318	14.160	31220	8	7.184	20.936					31368	9	19.925	9.355	31442	11	18.028	19.196
31147	13	13.692	14.492	31221	8	10.370	20.512					31369	8	24.544	9.789	31443	18	20.330	19.984
31148	8	14.594	14.017	31222	25	11.236	20.610					31370	10	24.644	9.878	31444	10	22.059	19.504
31149	8	17.182	14.523	31223	24	23.278	20.844					31371	17	0.708	10.912	31445	15	22.089	19.948
31150	13	17.724	14.682	31224															



31455*	35	14.140	21.808	31520	20	2.435	1.156	31594	15	16.826	5.585	31668	8	16.208	10.837	31742	17	1.644	15.660
31456*	36	14.572	21.971	31521	25	2.636	1.850	31595	19	20.740	5.849	31669	10	17.391	10.616	31743	8	4.454	15.182
31457	14	17.266	21.451	31522	13	3.788	1.274	31596	8	22.450	5.820	31670	15	17.469	10.292	31744	13	5.900	15.060
31458	8	18.644	21.322	31523	10	4.623	1.532	31597	14	24.220	5.406	31671	8	19.624	10.724	31745	21	10.366	15.876
31459*	94	20.929	21.882	31524	12	4.834	1.844	31598	16	24.400	5.270	31672	19	21.233	10.516	31746	15	10.691	15.086
31460	9	21.564	21.864	31525	38	5.388	1.624	31599	8	24.906	5.326	31673	13	2.628	11.008	31747	24	11.235	15.954
31461	12	1.850	22.756	31526	39	5.806	1.082	31600	17	3.709	6.882	31674	30	2.972	11.360	31748	9	18.034	15.824
31462	8	4.348	22.070	31527	8	7.588	1.442	31601	16	4.367	6.372	31675	16	5.656	11.946	31749	17	19.004	15.587
31463	10	13.112	22.166	31528	8	7.814	1.266	31602	24	5.524	6.758	31676	8	6.158	11.473	31750*	42	19.824	15.768
31464	8	17.496	22.940	31529	23	10.759	1.106	31603	8	9.276	6.694	31677	17	7.910	11.658	31751	11	19.991	15.473
31465	10	19.369	22.200	31530	12	12.313	1.604	31604	8	12.187	6.221	31678	25	8.361	11.594	31752	13	22.296	15.570
31466*	29	22.806	22.146	31531	11	12.784	1.842	31605	21	13.550	6.401	31679*	49	8.378	11.608	31753	18	24.021	15.399
31467*	28	23.020	22.138	31532	14	13.179	1.978	31606	20	15.294	6.230	31680	19	12.256	11.798	31754	36	0.296	16.146
31468*	34	23.498	22.634	31533	32	20.554	1.128	31607	16	17.104	6.354	31681	16	19.632	11.149	31755	16	3.901	16.392
31469	11	24.148	22.034	31534	8	21.228	1.179	31608	8	17.586	6.043	31682	20	22.875	11.248	31756	11	7.540	16.624
31470	8	19.788	23.566	31535	8	4.816	2.303	31609	8	19.211	6.417	31683	8	1.550	12.642	31757	16	9.004	16.416
31471	12	21.954	23.470	31536	19	12.764	2.289	31610	21	20.422	6.906	31684	16	1.703	12.298	31758	14	11.904	16.456
31472	8	9.054	24.210	31537	13	13.200	2.528	31611	11	23.836	6.052	31685	13	2.285	12.491	31759	31	23.244	16.110
31473*	37	12.740	24.204	31538	12	15.488	2.096	31612	35	1.030	7.450	31686	8	2.852	12.290	31760*	41	23.515	16.350
31474	17	13.505	24.634	31539	8	17.810	2.378	31613	10	2.530	7.378	31687	8	3.910	12.682	31761	11	25.957	16.888
31475	9	13.591	24.494	31540	9	18.570	2.389	31614	28	3.462	7.558	31688*	41	6.046	12.272	31762	27	0.798	17.934
31476	10	16.093	24.584	31541	14	22.658	2.656	31615	9	3.484	7.653	31689	25	7.246	12.003	31763	12	1.636	17.054
31477	18	17.264	24.558	31542	18	23.181	2.305	31616	8	4.851	7.869	31690	19	9.301	12.634	31764	26	2.332	17.193
31478	10	9.184	25.241	31543	18	24.026	2.526	31617	12	6.379	7.532	31691	11	9.560	12.579	31765	24	2.432	17.143
31479	8	11.354	25.936	31544	27	24.763	2.842	31618	10	7.326	7.238	31692	13	10.899	12.460	31766	20	4.632	16.674
31480	8	15.427	25.343	31545	11	1.991	3.040	31619	11	9.804	7.140	31693	23	12.286	12.354	31767	25	8.054	17.090
31481	12	16.507	25.200	31546	8	4.571	3.577	31620	15	10.348	7.552	31694	30	14.094	12.268	31768	11	10.977	17.738
31482	12	21.474	25.477	31547	10	4.800	3.118	31621	11	11.222	7.154	31695	30	14.174	12.958	31769	8	13.383	17.024
31483	12	22.560	25.352	31548	12	4.839	3.386	31622	10	11.286	7.928	31696	39	14.206	12.059	31770	8	13.862	17.969
				31549	19	5.595	3.025	31623	10	13.885	7.450	31697	26	17.141	12.731	31771	9	14.118	17.896
				31550*	62	5.602	3.660	31624	8	15.324	7.767	31698	8	19.449	12.245	31772	11	14.420	17.130
				31551*	37	8.254	3.931	31625	13	15.990	7.436	31699	11	20.228	12.812	31773	15	16.701	17.216
				31552	13	9.528	3.993	31626	10	16.068	7.326	31700	13	20.233	12.788	31774	18	19.492	17.448
				31553	8	11.182	3.860	31627	8	16.840	7.111	31701	14	22.253	12.262	31775	10	22.140	17.015
				31554	19	13.056	3.309	31628	15	21.365	7.854	31702	12	22.256	12.933	31776	37	25.452	17.846
				31555	13	13.370	3.565	31629	11	24.866	7.034	31703	11	23.353	12.624	31777	13	1.538	18.186
				31556*	45	14.400	3.199	31630	32	2.210	8.565	31704	36	23.416	12.562	31778	24	1.614	18.490
				31557	14	16.162	3.356	31631	25	5.404	8.166	31705	19	24.442	12.642	31779	14	4.850	18.064
				31558	10	16.528	3.959	31632	8	8.314	8.667	31706	39	24.532	12.481	31780	20	5.285	18.570
				31559	9	16.708	3.580	31633	16	10.122	8.484	31707	26	24.812	12.646	31781	18	5.345	18.224
				31560	15	19.038	3.767	31634	8	10.554	8.268	31708	10	1.186	13.109	31782	15	5.378	18.954
				31561	23	22.006	3.376	31635	25	14.024	8.202	31709	9	3.227	13.338	31783	12	6.495	18.944
				31562	14	22.368	3.071	31636	8	14.290	8.941	31710	11	3.399	13.260	31784	11	6.770	18.457
				31563	9	22.926	3.499	31637	11	14.438	8.370	31711	8	6.716	13.574	31785	33	10.244	18.394
				31564	9	23.175	3.872	31638	11	15.341	8.620	31712	8	6.854	13.882	31786	11	12.320	18.464
				31565	9	23.545	3.768	31639	8	19.034	8.804	31713	9	11.869	13.698	31787	20	12.692	18.616
				31566	9	3.932	4.650	31640	22	19.300	8.850	31714	8	13.337	13.264	31788	34	13.450	18.658
				31567	10	5.449	4.154	31641	12	21.101	8.190	31715	29	13.568	13.588	31789	11	18.028	18.025
				31568	8	8.967	4.098	31642	22	23.538	8.310	31716	13	16.781	13.180	31790	11	22.288	18.803
				31569	23	9.264	4.176	31643	14	2.264	9.770	31717	11	17.921	13.931	31791	10	22.854	18.552
				31570	11	10.043	4.253	31644	18	2.364	9.858	31718	8	18.547	13.490	31792	14	24.022	18.875
				31571	19	10.764	4.126	31645	8	2.574	9.346	31719	12	20.117	13.857	31793	17	0.871	19.176
				31572*	51	12.408	4.962	31646	10	3.270	9.090	31720	8	21.812	13.052	31794	24	5.256	19.116
				31573	14	15.870	4.894	31647	24	9.328	9.804	31721	24	22.946	13.836	31795	25	6.067	19.971
				31574	16	16.056	4.193	31648	19	12.484	9.082	31722	15	0.231	14.774	31796	10	6.456	19.300
				31575	33	16.108	4.622	31649	8	17.078	9.653	31723	38	0.282	14.838	31797	13	6.752	19.911
				31576	12	16.577	4.806	31650	32	18.332	9.679	31724	8	3.376	14.707	31798	24	6.842	19.390
				31577	12	19.404	4.487	31651	8	20.672	9.650	31725	10	3.788	14.977	31799	10	8.276	19.494
				31578	11	22.030	4.120	31652	13	22.472	9.562	31726	15	9.006	14.435	31800	19	9.848	19.600
				31579	12	1.936	5.918	31653	27	0.038	10.316	31727	16	9.161	14.804	31801	36	11.665	19.826
				31580	13	3.022	5.389	31654	14	0.499	10.004	31728	20	9.200	14.014	31802	12	12.778	19.962
				31581*	59	3.148	5.488	31655	36	1.623	10.698	31729	9	11.531	14.038	31803	18	15.706	19.386
				31582*	75	3.208	5.854	31656	15	2.002	10.807	31730	14	12.558	14.814	31804	20	16.266	19.044
				31583	17	6.716	5.342	31657	30	2.702	10.317	31731	14	12.558	14.863	31805	8	19.642	19.070
				31584	24	8.180	5.962	31658*	73	3.692	10.602	31732	26	12.714	14.703	31806	12	20.216	19.934
				31585	12	9.832	5.010	31659	9	7.334	10.480	31733	25	12.898	14.864	31807	26	20.674	19.612
				31586	10	10.251	5.665	31660	24	7.468	10.264	31734	18	16.437	14.192	31808	9	21.350	19.205



31816	8	16.632	20.087	31890	14	12.974	25.792	31942	8	21.513	3.281	32016	8	15.750	10.008	32090	6	10.152	15.564
31817	12	16.742	20.549	31891	13	14.066	25.574	31943	22	24.768	3.265	32017*	49	16.560	10.818	32091	8	10.754	15.850
31818	8	16.959	20.906	31892	34	14.937	25.789	31944	14	2.054	4.870	32018	8	21.674	10.793	32092*	44	12.430	15.194
31819	10	17.754	20.962	31893	9	15.062	25.388	31945	8	2.559	4.921	32019	22	23.828	10.282	32093	25	17.030	15.308
31820	14	19.248	20.051	31894	13	16.406	25.146	31946	22	6.076	4.716	32020*	38	24.628	10.095	32094	9	17.486	15.908
31821	19	22.025	20.346	31895	8	18.868	25.451	31947	15	6.372	4.896	32021	17	24.858	10.558	32095	14	18.243	15.744
31822	8	24.540	20.405	31896	8	20.675	25.500	31948	9	8.014	4.630	32022	8	2.197	11.169	32096	11	18.744	15.925
31823	16	25.241	20.044					31949	11	8.572	4.578	32023	28	4.850	11.046	32097	6	19.919	15.135
31824	10	0.080	21.141					31950	11	11.584	4.946	32024	26	5.042	11.892	32098	7	21.426	15.386
31825	11	1.298	21.956					31951*	76	16.367	4.609	32025	17	5.420	11.314	32099	11	23.632	15.172
31826	21	1.940	21.920					31952	7	20.316	4.804	32026	8	6.883	11.092	32100	32	24.849	15.614
31827	15	3.918	21.414					31953	10	21.470	4.683	32027	18	7.508	11.272	32101	10	3.692	16.478
31828	11	4.272	21.730					31954	12	23.859	4.679	32028	8	7.970	11.176	32102	9	3.988	16.840
31829	10	5.194	21.102					31955	34	24.566	4.075	32029*	51	11.056	11.384	32103	8	6.057	16.468
31830	10	5.375	21.167					31956	8	1.494	5.658	32030	18	13.419	11.910	32104	9	9.088	16.650
31831	11	5.643	21.717					31957	11	1.872	5.006	32031	9	13.450	11.096	32105	34	9.766	16.365
31832	11	7.327	21.732					31958	9	6.754	5.766	32032	7	16.186	11.322	32106*	58	12.027	16.414
31833	38	7.655	21.864					31959	8	7.222	5.800	32033	7	16.599	11.073	32107	8	13.362	16.814
31834	15	7.828	21.340					31960	7	9.752	5.297	32034	25	17.790	11.225	32108	20	15.666	16.226
31835	25	8.922	21.228					31961	10	9.985	5.387	32035	8	17.946	11.615	32109	24	17.626	16.550
31836	10	10.598	21.030					31962	27	11.174	5.607	32036*	63	19.522	11.692	32110	21	19.694	16.272
31837	8	10.990	21.165					31963*	33	11.850	5.538	32037	20	19.896	11.110	32111	9	22.224	16.837
31838	24	12.583	21.764					31964	10	12.297	5.342	32038	25	21.732	11.460	32112	39	22.700	16.150
31839	8	15.202	21.369					31965	9	12.650	5.460	32039	8	1.055	12.230	32113	11	23.067	16.954
31840	20	15.566	21.003					31966	10	19.210	5.936	32040	34	1.118	12.170	32114	10	25.166	16.200
31841	10	16.500	21.214					31967	9	2.529	6.632	32041	16	2.145	12.242	32115*	36	3.192	17.440
31842	21	18.924	21.197					31968	17	9.035	6.744	32042	38	2.232	12.080	32116	21	5.224	17.580
31843	8	20.106	21.662					31969	14	9.645	6.648	32043	19	2.516	12.245	32117	7	5.844	17.225
31844	22	23.735	21.837					31970	17	9.820	6.170	32044	8	4.125	12.725	32118	7	7.572	17.944
31845	46	0.606	22.037					31971	8	12.432	6.854	32045	8	4.142	12.189	32119	8	14.936	17.658
31846	41	0.817	22.028					31972	12	16.420	6.706	32046*	62	5.068	12.604	32120	17	19.120	17.575
31847*	55	1.292	22.517					31973	27	17.206	6.848	32047	8	6.838	12.394	32121	8	19.954	17.554
31848	26	6.218	22.102					31974	8	17.513	6.609	32048	8	8.482	12.570	32122	8	21.873	17.746
31849	19	7.912	22.920					31975	7	18.922	6.878	32049	16	9.310	12.986	32123	8	22.380	17.923
31850	19	9.969	22.319					31976	22	20.260	6.475	32050	11	9.510	12.760	32124	30	23.308	17.440
31851	15	16.542	22.420					31977	7	20.754	6.234	32051	10	11.034	12.985	32125	10	1.772	18.480
31852	9	17.572	22.153					31978	9	23.184	6.208	32052	24	11.482	12.372	32126	8	2.650	18.450
31853	38	17.661	22.802					31979	15	23.476	6.837	32053*	45	14.980	12.268	32127	7	3.708	18.388
31854*	41	19.315	22.530					31980	12	25.078	6.886	32054	7	19.270	12.422	32128	9	3.914	18.266
31855	20	21.642	22.840					31981	19	1.208	7.918	32055	11	19.694	12.416	32129	7	10.607	18.988
31856	9	1.536	23.738					31982	12	4.100	7.208	32056	8	20.661	12.867	32130	8	11.305	18.814
31857	10	3.429	23.892					31983	8	4.729	7.165	32057	22	22.168	12.084	32131	7	12.157	18.796
31858	25	6.308	23.112					31984*	68	7.886	7.503	32058	7	22.310	12.556	32132	10	13.340	18.460
31859	9	7.145	23.387					31985	10	18.930	7.103	32059	15	0.656	13.450	32133	10	13.925	18.306
31860	19	7.609	23.104					31986	9	24.235	7.368	32060	29	0.922	13.710	32134	26	14.780	18.730
31861	12	11.385	23.494					31987	19	5.557	8.740	32061	11	2.810	13.644	32135	7	15.040	18.745
31862	13	13.276	23.813					31988*	52	13.396	8.932	32062	8	5.880	13.755	32136	7	15.907	18.400
31863	23	13.854	23.616					31989	10	15.908	8.536	32063	8	11.100	13.010	32137	8	16.681	18.405
31864	24	14.114	23.266					31990*	49	17.770	8.020	32064	15	13.500	13.056	32138	9	18.290	18.782
31865	8	14.664	23.676					31991	10	20.679	8.734	32065	9	13.569	13.630	32139	9	19.945	18.896
31866	18	15.555	23.624					31992	14	25.622	8.908	32066	8	15.844	13.207	32140	11	22.623	18.629
31867	8	22.620	23.146					31993	9	25.896	8.920	32067	10	19.294	13.438	32141	8	24.879	18.414
31868	16	24.010	23.514					31994	9	0.154	9.174	32068	8	19.466	13.450	32142	62	0.486	19.038
31869	10	25.130	23.969					31995	8	4.593	9.567	32069	7	19.715	13.178	32143	9	3.000	19.636
31870	12	25.460	23.152					31996	6	4.714	9.066	32070	14	19.745	13.281	32144	8	4.891	19.880
31871	12	3.883	24.450					31997	7	8.924	9.211	32071	11	20.578	13.868	32145	8	10.326	19.700
31872	8	8.794	24.953					31998	8	12.483	9.738	32072	11	22.999	13.525	32146	11	11.544	19.044
31873	12	12.988	24.304					31999	9	17.524	9.470	32073	7	23.650	13.038	32147	6	12.873	19.202
31874	8	16.918	24.007					32000	17	20.831	9.984	32074	13	25.638	13.390	32148	7	13.665	19.026
31875	8	17.173	24.925					32001	9	22.346	9.540	32075*	37	7.265	14.074	32149*	64	13.686	19.516
31876	19	17.533	24.762					32002	6	22.970	9.357	32076	7	7.870	14.875	32150	8	13.932	19.857
31877	8	22.544	24.948					32003	11	23.158	9.036	32077	14	8.200	14.492	32151	8	15.260	19.944
31878	11	25.174	24.288					32004	9	24.370	9.310	32078	10	8.301	14.560	32152	8	17.980	19.837
31879	30	0.383	25.226					32005	12	0.570	10.859	32079	10	9.050	14.104	32153	26	19.524	19.120
31880	13	1.172	25.262					32006	8	3.522	10.038	32080	11	11.008	14.874	32154	32	19.584	19.110
31881	30	5.182	25.484					32007	9	3.975	10.234	32081	34	12.240	14.670	32155	21	21.297	19.204
31882	15	6.720	25.268					32008	7	4.765	10.040	32082	9	18.440	14.967	32156	11	8.764	20.104
31883	25	7.218	25.364					32009	9	4.784	10.396	32083	8	20.441	14.882	32157	11	20.458	20.912
31884	29	8.676	25.079					32010	17	5.400	10.370	32084	8	23.370	14.322	32158	9	20.929	20.038
31885	8	9.966	25.318					32011	8										



32164	10	17.918	21.172	<div>R.A. 11<sup>h</sup> 16<sup>m</sup></div> <div>Plate 524; 1915 Mar. 17.</div> <div>Provisional Constants.</div> <div>A            B            C</div> <div>—01764 +01221 —2047</div> <div>D            E            F</div> <div>—01192 —01776 +1070</div> <div>Mag.=15.2—1.09√d</div>	32306	8	11.859	9.480	32380	10	0.704	21.464	32463	8	2.782	3.232
32165	23	18.360	21.956		32307	8	13.910	9.411	32381	10	1.580	21.427	32464*	23	14.021	3.322
32166	27	22.034	21.156		32308	11	16.530	9.134	32382	9	4.026	21.144	32465	10	21.379	3.794
32167	11	3.244	22.743		32309*	22	17.508	9.906	32383	21	10.045	21.862	32466	18	18.204	3.942
32168	42	4.917	22.674		32310	8	23.055	9.834	32384*	35	20.027	21.754	32467	14	3.492	5.504
32169	13	5.960	22.618		32311	12	1.026	10.837	32385	15	24.026	21.124	32468	9	8.416	5.004
32170	7	11.288	22.432		32312*	21	1.826	10.636	32386*	23	6.978	22.408	32469	8	15.783	5.396
32171	7	11.031	22.442		32313	9	14.070	10.744	32387	10	14.954	22.364	32470	8	21.824	5.694
32172	7	12.366	22.466		32314	11	14.506	10.358	32388	10	15.070	22.624	32471	8	22.168	5.642
32173	21	13.083	22.284		32315	8	19.430	10.114	32389	11	19.066	22.677	32472	12	6.198	6.048
32174	33	13.372	22.472	32316	11	2.072	11.095	32390	21	20.131	22.832	32473	18	10.068	6.444	
32175	12	13.408	22.413	32317*	20	11.115	11.894	32391	20	21.176	22.580	32474	16	21.112	6.904	
32176	40	16.620	22.992	32318	9	13.429	11.416	32392	10	21.684	22.072	32475	22	23.345	6.076	
32177	7	17.954	22.366	32319	8	14.214	11.192	32393	8	22.056	22.306	32476	28	0.401	7.130	
32178	8	20.776	22.590	32320	17	16.600	11.084	32394	8	22.135	22.416	32477	10	3.980	7.598	
32179	8	22.624	22.584	32321	11	21.546	11.264	32395	12	25.698	22.604	32478	12	7.800	7.130	
32180	8	23.204	22.293	32322	9	24.468	11.035	32396	24	1.046	23.294	32479	8	17.245	7.340	
32181	42	23.580	22.634	32323	28	25.796	11.036	32397	10	14.038	23.036	32480	20	18.712	7.763	
32182	12	25.876	22.882	32324*	22	8.776	12.288	32398	14	19.124	23.100	32481	16	1.342	8.726	
32183	19	1.796	23.115	32325	8	2.924	13.934	32399	15	22.138	23.606	32482	8	3.871	8.396	
32184	8	2.923	23.564	32326	11	3.887	13.186	32400	8	0.714	24.701	32483	9	11.376	8.014	
32185	10	2.970	23.882	32327*	32	4.696	13.188	32401	9	1.573	24.376	32484	31	17.222	8.512	
32186	7	4.513	23.888	32328*	23	5.894	13.969	32402*	29	7.672	24.176	32485	21	17.692	8.466	
32187*	41	5.966	23.284	32329	8	7.088	13.346	32403	12	9.911	24.284	32486	14	17.939	8.864	
32188	7	6.310	23.302	32330	8	8.537	13.568	32404	11	11.618	24.814	32487	8	19.883	8.289	
32189	8	8.732	23.194	32331	10	8.652	13.870	32405	13	15.772	24.357	32488	8	24.484	8.507	
32190	8	10.214	23.233	32332	14	11.039	13.260	32406*	36	17.833	24.053	32489	10	10.081	9.636	
32191*	110	11.748	23.482	32333*	44	19.845	13.504	32407	9	23.388	24.439	32490	13	15.016	9.390	
32192	10	17.909	23.720	32334	8	23.066	13.394	32408	10	6.665	25.170	32491	13	16.192	9.464	
32193	8	19.972	23.017	32335	8	0.260	14.124	32409	8	7.107	25.145	32492	10	4.830	10.024	
32194	10	24.075	23.718	32336	11	9.836	14.156	32410	14	11.342	25.218	32493	12	8.566	10.895	
32195	19	4.100	24.644	32337	8	11.624	14.380	32411	8	14.636	25.432	32494*	60	13.206	10.324	
32196	26	7.775	24.508	32338	8	12.906	14.076	32412*	25	17.474	25.045	32495*	58	13.250	10.404	
32197	7	10.686	24.102	32339	8	13.932	14.639	32413	10	18.956	25.520	32496	18	20.596	10.923	
32198	12	14.590	24.596	32340	8	19.222	14.322	32414	11	20.724	25.518	32497	8	1.830	11.220	
32199	7	17.906	24.810	32341	12	21.735	14.701	32415*	60	24.796	25.090	32498*	32	3.158	11.214	
32200	34	19.348	24.205	32342*	130	23.692	14.216					32499	16	13.276	11.434	
32201	19	20.428	24.196	32343	15	24.875	14.468					32500*	28	22.966	11.720	
32202	8	20.434	24.098	32344	8	0.944	15.774					32501	22	4.978	12.915	
32203	13	21.936	24.097	32345	8	8.224	15.574					32502	24	7.538	12.022	
32204	10	23.214	24.021	32346	11	12.111	15.848					32503	19	14.280	12.254	
32205	12	4.270	25.793	32347	11	15.292	15.598					32504	15	15.576	12.064	
32206	10	4.460	25.619	32348	8	15.511	15.737					32505	9	18.736	12.344	
32207	8	5.947	25.180	32349*	24	15.974	15.964					32506	10	18.766	12.798	
32208	6	6.313	25.756	32350	8	16.670	15.710					32507*	38	20.288	12.667	
32209	24	6.441	25.352	32351	20	0.016	16.776					32508	16	24.199	12.836	
32210	8	7.260	25.810	32352	16	2.174	16.192					32509	9	5.412	13.020	
32211	46	9.267	25.292	32353	8	2.505	16.774					32510	20	5.976	13.754	
32212	31	9.518	25.289	32354	14	6.575	16.854					32511	17	7.862	13.788	
32213	64	12.116	25.543	32355*	19	9.561	16.987					32512	8	14.452	13.875	
32214	11	12.722	25.537	32356	10	16.897	16.673					32513	10	18.151	13.498	
32215	24	16.216	25.598	32357	12	20.288	16.674					32514	20	20.532	13.480	
32216	30	17.106	25.052	32358	13	22.266	16.372					32515	14	20.738	13.541	
32217	10	18.116	25.860	32359	20	24.235	16.843					32516*	35	21.518	13.800	
32218	9	21.995	25.487	32360	8	0.407	17.581					32517	15	24.364	13.380	
32219	8	23.655	25.816	32361	14	4.966	17.856					32518*	130	1.064	14.406	
32220	10	23.846	25.579	32362	12	5.812	17.756					32519	19	2.260	14.651	
				32363	8	8.156	17.692					32520	12	6.669	14.342	
				32364	8	13.126	17.266					32521	27	10.146	14.864	
				32365	8	21.885	17.934					32522	8	11.169	14.866	
				32366	8	22.063	17.429					32523	9	13.466	14.080	
				32367	13	22.284	17.156					32524	8	24.260	14.662	
				32368	14	0.656	18.064					32525	28	6.012	15.426	
				32369	24	3.968	18.036					32526	20	7.864	15.126	
				32370	10	4.874	18.598					32527*	50	15.319	15.234	
				32371	8	10.032	18.644					32528*	38	16.500	15.160	
				32372	18	1										



R.A. 11<sup>h</sup> 32<sup>m</sup>

Plate 497; 1915 Feb. 14.

Provisional Constants.

A	B	C
-01744	+00355	-1987

D	E	F
-00331	-01786	+0331

Mag. = 15.2 - 1.09√d

No.	d	x	y
32650	8	0.596	0.964
32651	11	5.674	0.882
32652	17	11.286	0.744
32653	10	16.145	0.193
32654	8	22.718	0.082
32655	10	23.152	0.564
32656	10	25.615	0.306
32657	12	0.166	1.780
32658	40	0.346	1.966
32659	9	5.196	1.566
32660	9	5.815	1.033
32661	8	6.583	1.394
32662	10	11.768	1.773
32663	40	18.366	1.654
32664	54	20.475	1.736
32665	8	0.600	2.186
32666	27	0.888	2.966
32667	8	8.854	2.116
32668	9	10.530	2.056
32669	9	10.714	2.876
32670	8	11.693	2.159
32671	8	18.798	2.807
32672	8	20.158	2.580
32673	12	22.006	2.162
32674	8	23.834	2.455
32675	32	24.257	2.475
32676	18	5.926	3.068
32677	8	8.529	3.502
32678	8	15.336	3.542
32679	39	16.885	3.478
32680	11	19.859	3.463
32681	13	4.720	4.972
32682	50	11.036	4.454
32683	11	13.517	4.723
32684	12	14.230	4.722
32685	16	15.609	4.448
32686	10	18.856	4.125
32687	8	19.272	4.158
32688	28	20.050	4.566
32689	20	14.118	5.370
32690	30	14.120	5.414
32691	15	0.735	6.288
32692	12	7.198	6.486
32693	12	8.872	6.636
32694	20	15.597	6.383
32695	11	3.488	7.928
32696	22	5.070	7.568
32697	12	5.100	7.550
32698	18	6.163	7.886
32699	17	7.324	7.184
32700	9	10.270	7.756
32701	8	13.849	7.298
32702	8	15.119	7.178
32703	8	18.526	7.714
32704	8	20.306	7.748
32705	8	21.202	7.258

32706	9	23.208	7.574
32707	10	25.456	7.306
32708	8	4.090	8.242
32709	8	10.722	8.486
32710	15	10.834	8.200
32711	12	15.045	8.086
32712	9	16.257	8.017
32713	10	23.725	8.546
32714	8	3.889	9.399
32715	18	7.496	9.814
32716	9	9.686	9.117
32717	8	10.264	9.337
32718	20	18.364	9.890
32719	8	21.862	9.052
32720	10	4.800	10.164
32721	11	6.931	10.153
32722	8	7.398	10.110
32723	8	11.699	10.955
32724	8	21.014	10.224
32725	10	24.724	10.678
32726	20	0.382	11.932
32727	19	7.114	11.523
32728	8	11.084	11.013
32729	21	17.398	11.618
32730	11	20.214	11.946
32731	13	24.235	11.054
32732	10	6.310	12.420
32733	12	6.833	12.084
32734	9	7.348	12.754
32735	14	8.834	12.384
32736	9	14.004	12.060
32737	26	19.810	12.944
32738	13	1.618	13.044
32739	11	1.788	13.587
32740	11	5.174	13.516
32741	8	7.605	13.931
32742	8	7.855	13.515
32743	18	9.421	13.746
32744	8	19.315	13.371
32745	10	21.524	13.610
32746	8	1.689	14.874
32747	11	5.700	14.444
32748	19	12.760	14.840
32749	9	16.750	14.960
32750	9	22.650	14.040
32751	41	24.188	14.521
32752	8	24.334	14.783
32753	8	4.438	15.822
32754	8	15.808	15.882
32755	20	21.837	15.445
32756	9	21.912	15.704
32757	13	22.366	15.136
32758	12	24.996	15.051
32759	18	25.113	15.868
32760	15	1.749	16.988
32761	8	2.709	16.386
32762	9	5.096	16.626
32763	11	10.351	16.216
32764	10	13.616	16.970
32765	8	14.882	16.991
32766	20	21.166	16.424
32767	8	1.306	17.626
32768	10	3.526	17.500
32769	8	5.940	17.748
32770	20	9.000	17.190
32771	8	13.099	17.016
32772	12	17.962	17.192
32773	18	4.152	18.544
32774	19	5.118	18.526
32775	8	6.736	18.234
32776	8	16.437	18.443
32777	14	17.342	18.770
32778	8	19.890	18.246
32779	10	0.962	19.796

32780	8	1.464	19.932
32781	8	8.070	19.392
32782	10	9.950	19.854
32783	21	11.791	19.756
32784	8	12.116	19.944
32785	20	19.926	19.252
32786	8	23.902	19.602
32787	13	2.259	20.726
32788	10	2.885	20.232
32789	8	4.178	20.634
32790	8	13.733	20.074
32791	44	15.592	20.286
32792	8	21.330	20.664
32793	10	21.614	20.276
32794	38	22.278	20.104
32795	24	10.950	21.074
32796	8	11.110	21.679
32797	12	12.046	21.996
32798	8	16.302	21.186
32799	10	19.524	21.922
32800	11	0.027	22.050
32801	8	3.826	22.938
32802	12	13.396	22.144
32803	12	13.557	22.820
32804	11	15.326	22.372
32805	25	22.764	22.100
32806	22	7.096	23.507
32807	8	12.926	23.466
32808	8	13.198	23.196
32809	8	15.950	23.994
32810	8	16.117	23.497
32811	15	17.532	23.480
32812	13	19.864	23.466
32813	10	20.062	23.602
32814	12	25.401	23.166
32815	16	4.326	24.546
32816	8	14.757	24.338
32817	15	15.940	24.235
32818	11	16.340	24.518
32819	12	16.606	24.766
32820	8	16.951	24.492
32821	8	22.810	24.442
32822	27	7.550	25.110
32823	11	10.869	25.978
32824	8	14.806	25.619

32854	8	8.445	0.934
32855	18	17.158	0.325
32856	40	21.426	0.560
32857	8	4.888	1.583
32858	35	11.048	1.418
32859	10	15.224	1.642
32860	10	16.482	1.927
32861	8	18.524	1.716
32862	13	21.222	1.024
32863	8	21.938	1.560
32864	25	22.658	1.350
32865	43	23.471	1.142
32866	14	25.240	1.212
32867	9	1.322	2.368
32868	9	1.588	2.075
32869	46	1.739	2.379
32870	8	5.135	2.306
32871	17	7.420	2.432
32872	8	7.727	2.891
32873	34	8.010	2.284
32874	12	10.466	2.085
32875	8	10.924	2.568
32876	8	20.772	2.764
32877	8	24.084	2.608
32878	10	6.324	3.871
32879	33	9.182	3.193
32880	10	9.654	3.236
32881	15	12.715	3.626
32882	8	18.034	3.866
32883	8	18.302	3.500
32884	8	22.914	4.666
32885	8	22.922	4.738
32886	11	23.590	4.736
32887	18	24.036	4.325
32888	9	24.518	4.464
32889	10	4.336	5.696
32890	10	5.118	5.458
32891	8	16.100	5.764
32892	8	16.326	5.435
32893	10	22.159	5.664
32894	8	1.546	6.852
32895	58	4.260	6.284
32896	8	4.358	6.647
32897	11	13.480	6.190
32898	8	14.328	6.800
32899	10	16.694	6.663
32900	10	22.864	6.255
32901	9	3.026	7.188
32902	10	3.620	7.662
32903	8	8.901	7.232
32904	35	10.202	7.572
32905	8	17.152	7.816
32906	29	23.625	7.640
32907	21	25.672	7.846
32908	10	1.315	8.460
32909	24	7.265	8.264
32910	8	22.579	8.052
32911	10	23.937	8.028
32912	21	4.434	9.430
32913	9	7.094	9.322
32914	13	15.268	9.094
32915	8	15.849	9.466
32916	11	16.430	9.428
32917	9	17.465	9.329
32918	10	20.370	9.953
32919	10	21.896	9.720
32920	13	1.870	10.959
32921	10	2.350	10.575
32922	19	7.924	10.462
32923	19	13.596	10.172
32924	20	24.363	10.373
32925	8	6.790	11.920
32926	15	9.194	11.034
32927	8	12.928	11.894

R.A. 11<sup>h</sup> 40<sup>m</sup>

Plate 525; 1915 Mar. 17.

Provisional Constants.

A	B	C
-01772	+01089	-0687

D	E	F
-01045	-01778	-1241

Mag. = 14.7 - 1.09√d

No.	d	x	y
32850	9	0.166	0.006
32851	10	0.606	0.484
32852	11	3.068	0.185
32853	11	6.370	0.311



32928	8	17.106	11.956	33002*	33	6.464	23.203	33083	13	10.342	3.409	33157	8	16.108	9.714	33231	12	21.844	15.328
32929	8	18.382	11.218	33003	19	9.480	23.240	33084	10	10.776	3.430	33158	8	19.050	9.024	33232	18	22.725	15.920
32930	10	5.340	12.320	33004	18	11.278	23.218	33085	12	11.772	3.184	33159*	40	21.616	9.210	33233	8	23.125	15.378
32931*	29	9.152	12.280	33005	12	22.256	23.572	33086	8	18.614	3.910	33160	8	22.226	9.922	33234	9	4.364	16.592
32932*	14	10.274	12.008	33006*	38	24.180	23.670	33087	11	18.736	3.380	33161	8	23.575	9.758	33235	10	5.220	16.677
32933	14	15.348	12.994	33007*	34	9.774	24.434	33088	18	20.896	3.770	33162	35	25.384	9.452	33236	8	5.275	16.828
32934*	22	17.910	12.342	33008	11	13.870	24.672	33089	9	23.992	3.499	33163*	33	2.002	10.540	33237	8	8.524	16.794
32935	8	19.100	12.706	33009	20	20.096	24.365	33090	12	25.569	3.055	33164	8	9.299	10.056	33238	8	13.530	16.214
32936*	25	20.910	12.100	33010	8	21.258	24.060	33091	10	0.129	4.050	33165	34	11.356	10.035	33239	20	13.660	16.921
32937	8	25.762	12.693	33011	8	1.900	25.130	33092	11	1.224	4.954	33166*	41	14.880	10.814	33240	8	14.301	16.085
32938	8	0.336	13.970	33012	23	6.312	25.224	33093*	27	1.665	4.543	33167	8	16.301	10.785	33241	12	17.777	16.518
32939	8	10.028	13.894	33013	11	7.470	25.400	33094	10	2.146	4.683	33168	13	16.844	10.178	33242*	8	18.356	16.638
32940	8	15.220	13.718	33014	10	12.078	25.979	33095	8	9.877	4.974	33169	16	19.955	10.470	33243	8	19.186	16.728
32941	35	25.683	13.118	33015	18	13.859	25.314	33096	8	14.490	4.245	33170	10	21.045	10.245	33244	8	20.810	16.042
32942*	51	1.873	14.425	33016	8	18.615	25.621	33097	9	14.936	4.838	33171	20	23.111	10.262	33245	14	21.748	16.870
32943	9	2.030	14.688	33017	8	19.844	25.684	33098	8	17.902	4.446	33172	9	2.664	11.799	33246	18	7.355	17.003
32944	12	2.697	14.940					33099	16	23.216	4.686	33173	9	2.774	11.961	33247	8	11.996	17.126
32945	10	7.612	14.486					33100	8	0.616	5.684	33174	8	5.448	11.238	33248	9	13.280	17.023
32946	10	11.878	14.780					33101	9	0.784	5.266	33175	15	7.496	11.633	33249	15	15.274	17.326
32947	10	13.250	14.194					33102	8	2.153	5.766	33176	20	9.117	11.378	33250*	48	15.660	17.150
32948	10	22.687	14.696					33103	10	5.365	5.716	33177	9	10.433	11.953	33251	20	16.880	17.615
32949	10	0.068	15.074					33104	8	7.417	5.591	33178	9	11.086	11.197	33252	8	4.910	18.181
32950*	18	2.828	15.758					33105	8	12.258	5.730	33179	10	18.202	11.170	33253	8	5.916	18.364
32951	8	5.487	15.685					33106	32	16.018	5.184	33180	8	21.480	11.738	33254	14	6.454	18.574
32952	10	7.148	15.920					33107	28	18.172	5.612	33181	9	25.885	11.047	33255	11	7.724	18.781
32953	10	12.790	15.450					33108	11	19.716	5.654	33182	8	4.246	12.705	33256	8	11.020	18.653
32954	13	19.606	15.330					33109	11	24.180	5.224	33183	8	8.224	12.104	33257*	50	12.557	18.484
32955	13	22.517	15.428					33110	10	25.245	5.542	33184*	42	8.908	12.692	33258	8	12.788	18.535
32956	11	23.412	15.175					33111	13	0.508	6.460	33185	15	9.062	12.058	33259	8	14.920	18.324
32957	9	5.759	16.222					33112*	44	3.902	6.770	33186	8	11.224	12.262	33260	10	15.165	18.564
32958	15	14.641	16.116					33113	9	5.930	6.655	33187*	43	12.960	12.780	33261	22	17.536	18.055
32959*	24	17.580	16.099					33114	12	7.526	6.339	33188	11	15.646	12.666	33262*	44	18.969	18.980
32960	10	3.848	17.594					33115	8	10.145	6.988	33189	8	16.023	12.060	33263	11	19.188	18.575
32961	10	4.570	17.768					33116	8	10.378	6.769	33190	20	17.318	12.300	33264	20	20.152	18.496
32962	11	4.952	17.720					33117	8	10.689	6.652	33191	8	17.376	12.695	33265	10	21.928	18.066
32963	10	15.572	17.930					33118	16	13.839	6.444	33192	9	18.626	12.792	33266*	43	22.274	18.956
32964	22	21.350	17.042					33119	20	13.940	6.323	33193*	45	3.318	13.263	33267	13	22.651	18.457
32965	10	4.430	18.014					33120	18	15.864	6.904	33194	20	5.210	13.158	33268	34	1.711	19.956
32966	11	4.903	18.098					33121*	40	17.246	6.704	33195	9	9.500	13.804	33269	17	2.052	19.985
32967*	23	7.100	18.858					33122	33	25.222	6.208	33196	11	10.475	13.118	33270*	56	4.226	16.696
32968	8	7.843	18.350					33123*	38	1.261	7.830	33197	8	10.541	13.676	33271	8	4.413	19.095
32969*	38	8.774	18.955					33124	8	5.376	7.026	33198	8	10.810	13.156	33272	14	4.739	19.758
32970	13	15.299	18.056					33125	8	13.475	7.348	33199	9	16.108	13.382	33273	10	5.104	19.506
32971	12	18.018	18.409					33126	13	16.393	7.520	33200*	40	18.536	13.518	33274	10	5.236	19.752
32972	17	20.840	18.240					33127*	120	21.120	7.756	33201	20	19.715	13.906	33275	10	7.645	19.446
32973	21	6.035	19.626					33128	18	21.525	7.640	33202	21	22.346	13.552	33276*	49	9.076	19.758
32974	10	6.700	19.864					33129	8	21.638	7.806	33203	9	0.118	14.242	33277	8	9.579	19.530
32975	12	7.173	19.237					33130	13	1.576	8.216	33204	13	0.352	14.837	33278	29	10.115	19.625
32976	8	7.422	19.328					33131	8	1.765	8.381	33205	17	3.800	14.278	33279	8	11.584	19.954
32977	8	9.252	19.541					33132	10	2.268	8.682	33206*	60	5.730	14.716	33280	8	13.287	19.433
32978	10	14.019	19.989					33133*	35	3.296	8.030	33207	8	5.782	14.685	33281	8	14.096	19.045
32979*	19	15.025	19.878					33134	17	3.915	8.060	33208	20	8.526	14.258	33282	8	14.492	19.256
32980	12	22.181	19.152					33135*	32	6.720	8.518	33209	24	8.698	14.100	33283	8	14.701	19.928
32981	21	24.044	19.860					33136	8	7.196	8.694	33210	15	9.460	14.248	33284	8	14.724	19.231
32982	12	24.386	19.888					33137	8	9.164	8.524	33211	16	11.106	14.974	33285	13	17.035	19.932
32983	36	0.064	20.041					33138	14	9.195	8.304	33212*	38	11.186	14.345	33286	11	17.707	19.229
32984	8	1.640	20.732					33139	22	9.458	8.804	33213	14	12.412	14.722	33287	8	19.292	19.780
32985	8	10.554	20.624					33140	20	13.734	8.120	33214	8	14.943	14.886	33288	8	20.420	19.725
32986	15	8.074	21.630					33141	9	14.441	8.042	33215	8	15.707	14.040	33289	8	20.560	19.808
32987*	87	12.080	21.900					33142	8	15.464	8.192	33216	12	18.314	14.525	33290	8	23.010	19.212
32988	8	14.720	21.820					33143	8	15.780	8.698	33217	8	19.490	14.875	33291	20	23.476	19.222
32989	10	18.108	21.851					33144	10	16.160	8.114	33218	8	20.746	14.078	33292	8	23.785	19.127
32990	9	21.519	21.202					33145	8	16.552	8.526	33219	8	25.054	14.112	33293	8	7.776	20.495
32991	11	24.200	21.385					33146	10	22.068	8.953	33220	14	25.754	14.484	33294	9	9.036	20.295
32992	23	25.760	21.990					33147	8	22.360	8.784	33221	14	0.184	15.566	33295	8	9.896	20.941
32993	29	0.585	22.025					33148	8	2.561	9.078	33222	16	1.072	15.308	33296	8	9.944	20.608
32994	14	10.724	22.216					33149	12	10.208	9.226	33223	11	1.620	15.810	33297	8	10.030	20.026
32995	8	13.085	22.699					33150*	40	11.457	9.766	33224	8	7.490	15.236	33298	10	10.994	20.562
32996*	44	19.400	22.176																



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34054	30	25.742	0.478	34128	8	0.580	12.372	34202*	53	18.547	22.866	34286	13	21.658	4.712	34360	16	18.544	14.183
34055	140	25.796	0.399	34129	12	1.404	12.038	34203	8	23.238	22.442	34287	22	0.824	5.284	34361	13	2.046	15.141
34056	18	4.834	1.866	34130	10	1.550	12.484	34204	12	7.526	23.716	34288	12	0.974	5.204	34362	11	6.174	15.324
34057	18	8.712	1.624	34131	12	2.414	12.178	34205	16	9.426	23.370	34289*	38	5.754	5.703	34363	28	7.728	15.687
34058	18	8.899	1.860	34132	20	4.301	12.630	34206	14	6.758	24.216	34290	14	6.046	5.004	34364	15	10.536	15.616
34059	19	14.889	1.242	34133	22	4.896	12.726	34207	23	7.614	24.364	34291	15	9.159	5.110	34365*	52	13.964	15.548
34060	11	17.137	1.612	34134	8	1.244	13.472	34208	23	9.108	24.500	34292	11	11.094	5.797	34366	9	16.228	15.174
34061*	68	19.980	1.863	34135	12	9.076	13.284	34209*	33	11.856	24.978	34293	13	25.674	5.211	34367	9	20.312	15.256
34062	8	1.478	2.822	34136	13	13.368	13.850	34210	8	14.190	24.145	34294	17	2.636	6.136	34368	22	24.534	15.626
34063*	42	8.068	2.580	34137	18	21.842	13.474	34211	18	6.180	25.280	34295	18	6.850	6.126	34369	34	14.640	16.331
34064	15	11.466	2.622	34138*	24	22.985	13.118	34212	12	9.946	25.714	34296	16	9.297	6.682	34370	16	19.000	16.490
34065	20	18.278	2.882	34139	11	6.580	14.156	34213*	28	19.488	25.183	34297	24	10.433	6.991	34371	23	0.174	17.897
34066	30	20.842	2.146	34140*	24	8.646	14.184	34214*	54	20.542	25.181	34298	10	13.429	6.144	34372	12	3.134	17.274
34067	9	8.154	3.672	34141*	30	12.862	14.974					34299*	27	14.643	6.064	34373*	36	4.330	17.322
34068	10	9.354	3.901	34142	19	15.684	14.830					34300	17	14.792	6.972	34374	16	4.412	17.708
34069	13	19.756	3.078	34143	19	15.735	14.300					34301	13	19.084	6.764	34375	15	5.060	17.792
34070	10	22.022	3.834	34144	8	16.432	14.541					34302	17	19.616	6.186	34376	15	6.237	17.170
34071	17	25.766	3.700	34145	14	18.058	14.476					34303	12	20.073	6.619	34377	15	22.070	17.269
34072	15	11.490	4.370	34146	12	24.240	14.649					34304	18	3.926	7.833	34378	17	11.744	18.830
34073	8	12.126	4.300	34147	8	2.633	15.720					34305	24	8.872	7.925	34379	16	18.021	18.792
34074	8	15.954	4.471	34148	18	5.504	15.384					34306	16	14.714	7.436	34380	9	2.434	19.326
34075	8	17.430	4.924	34149	21	14.308	15.463					34307*	56	14.786	7.116	34381	10	5.284	19.979
34076	13	17.752	4.662	34150	13	15.306	15.306					34308*	76	19.684	7.965	34382	12	10.007	19.523
34077*	32	1.006	5.030	34151	8	19.212	15.994					34309*	37	3.124	8.072	34383	10	12.903	19.292
34078	24	9.763	5.400	34152	9	24.473	15.072					34310	19	4.452	8.916	34384	12	13.140	19.467
34079	13	12.680	5.699	34153	14	3.544	16.100					34311	14	8.616	8.693	34385	14	16.854	19.332
34080	21	14.172	5.676	34154	25	4.325	16.734					34312*	42	11.339	8.804	34386	24	16.917	19.686
34081	16	16.807	5.993	34155*	23	8.301	16.418					34313	16	18.995	8.516	34387	11	17.311	19.756
34082	13	17.962	5.803	34156	8	19.793	16.195					34314	15	19.342	8.227	34388*	24	17.562	19.904
34083	13	19.818	5.743	34157	10	21.960	16.049					34315	17	21.294	8.874	34389	12	0.294	20.562
34084	29	21.558	5.154	34158	13	22.166	16.157					34316	14	21.966	8.213	34390	8	1.365	20.857
34085	12	23.248	5.221	34159	12	0.216	17.743					34317*	36	0.656	9.165	34391	20	13.650	20.840
34086	12	3.710	6.717	34160	12	1.499	17.357					34318	12	1.636	9.261	34392*	56	15.437	20.274
34087	20	3.994	6.516	34161	12	3.530	17.174					34319	15	2.393	9.704	34393	19	19.798	20.255
34088	12	8.495	6.770	34162	11	3.650	17.396					34320	19	9.306	9.826	34394	26	22.656	20.172
34089	12	13.874	6.306	34163*	36	14.097	17.355					34321	13	11.737	9.748	34395	25	0.284	21.588
34090	19	20.906	6.278	34164	14	14.112	17.190					34322	23	11.994	9.014	34396	13	14.387	21.462
34091	8	23.328	6.631	34165*	40	14.970	17.210					34323	15	13.384	9.622	34397	14	16.602	21.627
34092	9	25.055	6.073	34166	10	20.222	17.924					34324*	32	21.234	9.466	34398	16	24.314	21.026
34093	24	1.474	7.771	34167	9	21.400	17.885					34325	15	24.104	9.209	34399	15	0.805	22.505
34094	8	2.154	7.852	34168	18	22.604	17.832					34326	21	25.134	9.336	34400	9	1.364	22.621
34095	11	8.386	7.050	34169	8	22.972	17.864					34327	17	25.936	9.696	34401	16	6.244	22.064
34096	8	12.565	7.970	34170	8	25.567	17.206					34328	10	2.568	10.100	34402	14	7.105	22.304
34097*	20	14.772	7.612	34171	14	4.358	18.794					34329	18	3.057	10.478	34403*	33	11.107	22.114
34098	8	15.770	7.772	34172	9	6.101	18.674					34330	20	9.065	10.064	34404	15	11.414	22.566
34099*	17	17.536	7.675	34173	10	19.406	18.186					34331	11	10.894	10.262	34405	15	14.265	22.398
34100	10	18.426	7.560	34174*	20	5.838	19.713					34332	13	16.854	10.949	34406	19	15.026	22.576
34101	26	21.628	7.716	34175	8	8.458	19.746					34333	10	20.266	10.976	34407	13	22.818	22.734
34102*	28	3.254	8.166	34176*	29	14.012	19.984					34334*	23	21.636	10.922	34408	13	23.126	22.318
34103	11	11.683	8.079	34177	13	16.142	19.770					34335	15	22.014	10.718	34409	15	8.170	23.484
34104	10	20.717	8.680	34178	11	16.389	19.402					34336	12	22.533	10.599	34410	10	9.429	23.581
34105	38	25.548	8.010	34179	20	17.506	19.862					34337*	30	9.176	11.536	34411*	39	11.925	23.720
34106	9	1.154	9.680	34180	16	21.713	19.427					34338	18	10.796	11.328	34412	15	15.876	23.672
34107	11	4.464	9.530	34181	8	24.864	19.259					34339	11	13.105	11.884	34413	33	16.434	23.107
34108	19	7.400	9.868	34182	8	0.977	20.981					34340	12	13.968	11.842	34414	17	17.650	23.236
34109	12	11.853	9.460	34183	12	1.523	20.846					34341	10	14.956	11.094	34415	13	5.710	24.546
34110	11	14.160	9.501	34184	8	6.534	20.732					34342	18	17.619	11.506	34416*	36	21.832	24.212
34111*	37	14.689	9.164	34185*	35	11.009	20.952					34343	8	21.036	11.862	34417	26	25.484	24.656
34112	8	21.114	9.680	34186	9	11.581	20.300					34344	13	5.300	12.737	34418	16	8.574	25.794
34113*	44	21.938	9.730	34187	10	18.230	20.340					34345	19	16.654	12.781	34419	24	8.615	25.916
34114*	34	23.086	9.102	34188*	49	20.015	20.762					34346	11	16.668	12.557	34420	22	14.583	25.274
34115	8	23.574	9.053	34189	9	23.800	20.796					34347	24	0.554	13.181				
34116	20	3.341	10.634	34190	10	1.015	21.560					34348	14	4.044	13.671				
34117	10	8.100	10.960	34191	12	4.125	21.586					34349	12	13.036	13.064				
34118	11	10.914	10.916	34192	10	4.330	21.173					34350	16	14.608	13.324				
34119	10	11.207	10.338	34193	15	8.067	21.980					34351	12	20.225	13.880				
34120	12	25.484	10.411	34194*	45	11.862	21.064					34352	17	1.811	14.714				
34121	11	1.195	11.673	34195	24	21.008	21.270					34353	21	5.683	14.543				
34122	11	1.486	11.141	34196*	31	22.072	21.431					34354	12	6.702	14.893				
34123	19	6.230	11.656	34197	22	22.720	21.520												



R.A. 12 <sup>h</sup> 36 <sup>m</sup>				R.A. 12 <sup>h</sup> 44 <sup>m</sup>			
Plate 610; 1916 Mar. 2.				Plate 519; 1915 Mar. 11.			
Provisional Constants.				Provisional Constants.			
A	B	C		A	B	C	
-02567 +00232 +1451				-01746 +00623 -0707			
D	E	F		D	E	F	
-00230 -02578 +0323				-00661 -01776 +0635			
Mag.=17.4-1.09√d				Mag.=16.1-1.09√d			
No.	d	x	y	No.	d	x	y
34450	34	0.486	0.876	34800	11	1.362	0.364
34451	26	4.157	0.644	34801	8	2.173	0.654
34452	11	5.876	0.922	34802	8	4.096	0.493
34453	8	8.050	0.590	34803	35	4.810	0.930
34454	8	8.078	0.814	34804	44	5.238	0.842
34455	8	15.505	0.538	34805	23	12.049	0.022
34456*	45	18.686	0.564	34806	8	12.438	0.570
34457	9	19.700	0.616				
34458*	54	22.075	0.246				
34459	13	24.860	0.588				
34460	8	0.544	1.240				
34461	13	2.702	1.226				
34462	13	5.508	1.412				
34463	8	10.125	1.836				
34464	49	13.384	1.655				
34465	8	18.324	1.804				
34466	26	19.242	1.042				
34467	8	20.236	1.390				
34468	11	21.163	1.981				
34469	8	21.491	1.618				
34470	28	23.372	1.629				
34471	8	3.715	2.692				
34472	14	7.744	2.978				
34473	8	9.170	2.689				
34474	10	9.440	2.236				
34475	8	10.208	2.535				
34476	33	14.146	2.074				
34477	8	16.407	2.768				
34478	8	22.738	2.278				
34479	10	23.614	2.151				
34480*	55	0.755	3.435				
34481	10	1.168	3.268				
34482	10	5.876	3.606				
34483	12	7.495	3.214				
34484	26	7.980	3.065				
34485	41	10.344	3.385				
34486	16	11.408	3.319				
34487	8	19.502	3.176				
34488*	54	19.571	3.323				
34489	20	23.714	3.674				
34490	8	1.196	4.086				
34491	8	4.788	4.688				
34492	18	6.570	4.685				
34493	10	11.558	4.994				
34494	29	12.574	4.606				
34495	8	12.779	4.059				
34496	8	13.270	4.884				
34497	14	18.200	4.502				
34498	20	24.186	4.274				
34499	22	25.040	4.606				
34500	15	3.179	5.274				
34501	46	3.514	5.785				
34502	9	3.952	5.969				
34503	29	4.696	5.773				
34504	21	6.188	5.068				
34505	35	8.089	5.510				
34506	18	16.866	5.514	34580	8	12.311	11.290
34507	8	17.213	5.404	34581	14	16.766	11.513
34508	8	18.166	5.876	34582	9	19.587	11.669
34509	35	18.791	5.798	34583	8	21.700	11.510
34510	17	21.510	5.213	34584	40	25.644	11.090
34511	8	21.556	5.840	34585	8	5.956	12.606
34512	16	23.066	5.002	34586	8	6.146	12.546
34513	8	25.144	5.162	34587	14	8.538	12.054
34514	8	18.324	6.814	34588	8	8.646	12.074
34515	8	2.480	6.366	34589	15	10.234	12.244
34516	18	2.516	6.482	34590	18	10.284	12.818
34517	28	3.888	6.212	34591	25	11.549	12.350
34518	9	5.306	6.406	34592	28	13.752	12.181
34519	25	5.384	6.494	34593	8	14.103	12.504
34520	36	7.593	6.130	34594	23	19.507	12.436
34521	8	14.836	6.948	34595	19	20.432	12.245
34522	19	15.750	6.475	34596	11	21.692	12.293
34523	54	18.132	6.204	34597	8	21.724	12.026
34524	12	20.715	6.470	34598	8	22.580	12.650
34525	8	25.410	6.086	34599	11	24.725	12.929
34526	29	25.922	6.406	34600	15	25.265	12.954
34527	8	1.823	7.030	34601	8	25.280	12.954
34528	15	2.576	7.396	34602	9	1.376	13.604
34529*	62	8.087	7.654	34603	8	4.000	13.438
34530	17	10.654	7.498	34604	32	5.441	13.788
34531*	44	10.886	7.026	34605	13	5.546	13.729
34532	25	11.038	7.363	34606*	40	6.295	13.712
34533	8	13.184	7.228	34607	27	8.600	13.252
34534	32	13.944	7.216	34608	35	10.266	13.463
34535	19	17.860	7.628	34609	10	10.329	13.460
34536	8	21.612	7.046	34610	8	13.528	13.964
34537	8	23.082	7.110	34611	19	15.264	13.118
34538	8	24.372	7.371	34612	8	15.941	13.822
34539	10	4.600	8.124	34613	8	16.871	13.974
34540	8	6.781	8.085	34614*	54	17.140	13.092
34541	21	7.986	8.706	34615	8	18.766	13.686
34542	19	9.526	8.832	34616	8	20.842	13.409
34543	15	9.774	8.166	34617	8	21.109	13.981
34544	18	12.104	8.114	34618	8	23.230	13.708
34545	23	12.542	8.078	34619	9	23.726	13.416
34546	8	14.056	8.531	34620	15	24.398	13.658
34547	25	17.095	8.020	34621	8	4.612	14.524
34548	20	18.569	8.404	34622*	30	5.204	14.399
34549	24	18.756	8.724	34623	8	5.354	14.200
34550	11	1.650	9.259	34624	24	6.248	14.762
34551*	35	2.680	9.373	34625*	64	9.414	14.260
34552	27	3.480	9.720	34626*	51	9.893	14.624
34553	30	3.631	9.156	34627	33	11.382	14.845
34554	8	3.733	9.136	34628	13	12.055	14.478
34555	13	3.997	9.689	34629	44	17.554	14.866
34556	8	4.016	9.396	34630	31	18.941	14.359
34557	25	6.500	9.760	34631	9	22.026	14.600
34558	8	8.078	9.239	34632	11	22.490	14.994
34559	8	10.442	9.108	34633	9	23.093	14.830
34560	43	13.638	9.863	34634	36	2.144	15.618
34561	13	15.626	9.541	34635	8	3.277	15.480
34562	14	17.051	9.778	34636	8	5.730	15.949
34563	8	18.444	9.968	34637	16	6.609	15.054
34564	42	22.244	9.904	34638	10	7.626	15.726
34565	9	0.111	10.653	34639	8	10.600	15.914
34566	11	4.103	10.837	34640	26	10.864	15.382
34567	11	5.747	10.476	34641	8	13.364	15.366
34568	12	6.896	10.110	34642	10	19.631	15.285
34569	40	10.522	10.974	34643	12	20.360	15.994
34570	9	12.735	10.178	34644	12	20.444	15.264
34571	8	13.274	10.174	34645	12	21.561	15.212
34572	15	13.648	10.872	34646*	73	22.532	15.364
34573	26	15.214	10.440	34647	14	23.820	15.836
34574	26	17.098	10.562	34648	11	24.000	15.352
34575	13	17.345	10.649	34649	8	5.272	16.404
34576	34	24.825					



34807	23	13.314	0.690	34881	15	10.240	9.280	34955	11	22.904	17.087	35053	8	13.936	0.852	35127	16	22.322	14.146
34808	8	20.180	0.612	34882	9	11.744	9.567	34956	9	3.031	18.234	35054	8	15.368	0.995	35128	9	2.936	15.372
34809	10	20.961	0.150	34883	9	12.853	9.400	34957	20	3.651	18.950	35055*	36	1.173	1.812	35129	10	12.075	15.605
34810	24	23.058	0.034	34884	8	12.984	9.067	34958	11	11.188	18.892	35056	8	5.216	1.462	35130	8	16.650	15.700
34811	8	23.110	0.595	34885	18	13.071	9.696	34959	17	0.307	19.598	35057	8	9.168	1.829	35131	14	17.174	15.117
34812	8	0.384	1.112	34886	18	19.261	9.355	34960	15	0.704	19.394	35058	17	10.334	1.463	35132	10	4.132	16.938
34813	17	0.686	1.729	34887	19	20.452	9.480	34961	20	3.396	19.632	35059	8	15.124	1.207	35133	10	4.538	16.447
34814	8	3.742	1.094	34888	8	0.950	10.400	34962	8	4.264	19.804	35060*	35	18.808	1.028	35134	19	5.356	16.708
34815	13	6.797	1.900	34889	18	2.270	10.290	34963	14	6.843	19.986	35061	19	21.929	1.776	35135*	43	24.249	16.921
34816	11	9.118	1.710	34890	9	3.650	10.850	34964*	27	9.458	19.162	35062	29	25.286	1.583	35136	22	25.496	16.932
34817	8	11.629	1.984	34891*	40	9.455	10.705	34965	8	20.420	19.746	35063	11	8.354	2.715	35137	17	3.691	17.012
34818	10	19.074	1.334	34892	20	9.512	10.713	34966	15	4.135	20.248	35064*	18	14.905	2.378	35138	18	11.752	17.657
34819*	52	23.868	1.488	34893	8	12.644	10.209	34967*	57	4.782	20.748	35065	11	1.668	3.664	35139	14	13.518	17.747
34820	10	24.660	1.772	34894	8	15.534	10.542	34968	21	7.335	20.522	35066	15	7.846	3.411	35140	8	0.686	18.065
34821	8	0.936	2.247	34895	12	15.540	10.908	34969	26	20.012	20.650	35067	22	10.220	3.976	35141*	33	3.527	18.800
34822	16	6.285	2.462	34896*	43	17.806	10.244	34970	18	20.200	20.770	35068*	30	10.910	3.322	35142*	60	3.597	18.834
34823	15	6.454	2.650	34897	8	19.835	10.462	34971	13	20.827	20.024	35069*	37	15.236	3.836	35143	10	6.386	18.840
34824	8	11.427	2.598	34898	23	3.108	11.227	34972*	24	21.620	20.430	35070	13	18.311	3.828	35144	8	20.399	18.141
34825	8	14.434	2.664	34899	8	3.483	11.046	34973	16	1.170	21.678	35071	11	21.238	3.658	35145	8	9.682	19.202
34826	8	16.035	2.724	34900	10	5.543	11.312	34974	8	3.962	21.219	35072	10	21.269	3.756	35146*	42	23.717	19.756
34827	8	17.679	2.032	34901	8	9.884	11.836	34975	9	4.048	21.055	35073*	32	2.384	4.652	35147	8	4.664	20.710
34828	9	20.937	2.744	34902	8	10.097	11.873	34976	17	6.490	21.780	35074	15	4.181	4.899	35148*	23	15.210	20.094
34829	14	1.059	3.784	34903	11	13.880	11.152	34977	10	10.187	21.286	35075	11	24.532	4.900	35149	17	16.586	20.356
34830*	32	4.278	3.212	34904	10	14.788	11.754	34978	26	24.702	21.114	35076	15	2.654	5.398	35150	8	22.306	20.460
34831	11	5.015	3.498	34905	16	14.808	11.364	34979	14	25.536	21.306	35077	8	8.033	5.666	35151	21	2.209	21.422
34832*	21	8.589	3.614	34906	25	15.325	11.954	34980	8	0.377	22.593	35078*	29	9.448	5.286	35152	8	3.050	21.607
34833	22	10.972	3.314	34907	8	18.989	11.030	34981	9	8.205	22.157	35079	13	14.720	5.043	35153	8	6.589	21.410
34834	13	12.026	3.184	34908	12	19.419	11.366	34982	20	10.690	22.048	35080	8	22.083	5.294	35154	8	8.580	21.575
34835	14	12.750	3.041	34909	8	19.658	11.934	34983	19	18.612	22.578	35081	8	2.116	6.228	35155*	28	9.795	21.225
34836	9	12.895	3.762	34910	25	23.508	11.027	34984	12	19.986	22.893	35082	8	8.244	6.209	35156	10	18.664	21.382
34837	10	13.400	3.780	34911	12	20.085	12.434	34985	13	20.624	22.304	35083*	17	11.169	6.948	35157	12	19.464	21.616
34838	10	18.563	3.392	34912*	26	22.789	12.902	34986	9	24.312	22.094	35084	10	15.336	6.908	35158	8	25.947	21.338
34839	9	21.160	3.947	34913	12	25.945	12.143	34987*	34	0.804	23.326	35085	8	21.718	6.811	35159	8	5.012	22.968
34840	16	24.342	3.349	34914	12	0.976	13.736	34988	21	1.634	23.355	35086	12	3.952	7.224	35160*	34	5.790	22.541
34841	9	24.798	3.956	34915	10	2.757	13.114	34989	11	2.926	23.756	35087*	14	11.439	7.102	35161	10	8.832	22.750
34842	11	1.549	4.379	34916	21	4.268	13.025	34990	8	4.966	23.358	35088	8	12.180	7.296	35162	19	10.408	22.211
34843	13	2.412	4.703	34917	11	4.629	13.912	34991	10	4.995	23.516	35089*	33	1.253	8.968	35163	11	10.876	22.938
34844	11	4.068	4.308	34918	13	7.049	13.626	34992	8	23.607	23.093	35090*	31	2.806	8.922	35164	12	12.431	22.188
34845	8	6.408	4.102	34919	9	7.540	13.376	34993	19	4.655	24.580	35091	14	7.950	8.070	35165	10	16.450	22.150
34846	18	12.967	4.146	34920	14	18.578	13.200	34994	12	11.943	24.432	35092	16	10.094	8.392	35166	12	17.743	22.946
34847	21	17.414	4.750	34921*	30	18.922	13.594	34995*	54	23.910	24.032	35093	12	10.624	8.410	35167	9	7.995	23.790
34848	20	21.204	4.109	34922	11	19.757	13.426	34996	9	3.578	25.341	35094*	17	10.686	8.350	35168	10	10.534	23.334
34849	44	25.050	4.344	34923*	40	21.650	13.610	34997	12	3.720	25.845	35095	8	16.260	8.617	35169	10	14.220	23.441
34850	11	0.423	5.132	34924	9	23.492	13.022	34998	8	6.440	25.318	35096	12	20.116	8.064	35170	18	23.985	23.550
34851*	44	18.640	5.316	34925	8	2.296	14.511	34999	20	6.457	25.200	35097	9	1.594	9.082	35171*	42	1.446	24.349
34852	13	22.025	5.426	34926	10	4.578	14.500	35000	17	7.566	25.470	35098	8	4.598	9.357	35172	8	5.828	24.369
34853	9	23.531	5.075	34927	22	12.099	14.704	35001	15	9.284	25.582	35099	10	8.338	9.694	35173*	22	7.050	24.804
34854	11	24.765	5.916	34928	15	15.993	14.230	35002	25	12.515	25.926	35100	8	8.418	9.026	35174	16	20.954	24.222
34855	25	25.310	5.092	34929	8	17.050	14.014	35003*	37	16.242	25.022	35101	9	9.879	9.266	35175*	19	21.065	24.875
34856	15	3.323	6.506	34930	11	23.376	14.400	35004	39	17.693	25.808	35102	8	10.942	10.164	35176	8	21.702	24.677
34857	9	9.341	6.304	34931	53	0.029	15.579					35103*	29	16.064	10.454	35177	8	9.192	25.973
34858	11	10.934	6.250	34932	8	1.517	15.550					35104	17	17.886	10.634	35178*	20	11.726	25.283
34859	13	13.396	6.672	34933	11	7.681	15.858					35105	19	0.912	11.351	35179	11	19.386	25.275
34860	12	16.181	6.230	34934	10	9.136	15.983					35106	10	7.570	11.673				
34861	11	16.735	6.150	34935	19	10.656	15.190					35107	11	11.826	11.799				
34862	17	18.150	6.784	34936	25	10.663	15.181					35108	12	11.876	11.913				
34863	17	3.704	7.712	34937	9	11.478	15.966					35109*	47	13.651	11.183				
34864	13	13.084	7.137	34938	15	17.036	15.508					35110	8	16.074	11.632				
34865	10	13.449	7.386	34939	10	19.103	15.383					35111*	21	24.197	11.400				
34866	11	14.977	7.842	34940	13	20.166	15.560					35112	8	25.814	11.653				
34867	10	15.546	7.396	34941*	28	20.908	15.784					35113	9	3.364	12.436				
34868	9	6.718	8.494	34942	19	25.487	15.069					35114	8	4.122	12.198				
34869*	38	9.510	8.235	34943	19	0.120	16.812					35115*	24	7.600	12.605				
34870*	46	13.266	8.567	34944	11	1.342	16.040					35116	9	15.302	12.315				
34871*	50	13.299	8.033	34945	8	16.582	16.426					35117	8	18.097	12.702				
34872	9	13.763	8.405	34946*	37	17.798	16.437					35118	14	22.135	12.280				
34873	14	13.822	8.592</																



**R.A. 13<sup>h</sup> 0<sup>m</sup>**

Plate 514; 1915 Feb. 20.

*Provisional Constants.*

A	B	C
-01767	+01181	-0769

D	E	F
-01176	-01784	+1478

 $\text{Mag.} = 16.6 - 1.09\sqrt{d}$ 

No.	d	x	y
35200	8	3.000	0.342
35201	8	15.325	0.126
35202	13	15.564	0.199
35203	8	23.212	0.836
35204	22	24.330	0.953
35205	75	25.181	0.653
35206*	40	2.656	1.616
35207	16	4.504	1.804
35208	9	4.642	1.882
35209	8	23.580	1.567
35210	8	3.573	2.236
35211	29	10.030	2.412
35212	18	16.331	2.648
35213*	31	20.686	2.585
35214	12	23.176	2.125
35215	33	8.925	3.704
35216	14	8.992	3.836
35217	8	12.334	3.756
35218*	29	23.566	3.436
35219	16	1.954	4.944
35220	12	9.714	4.145
35221	23	17.534	4.695
35222	20	24.638	4.016
35223	8	25.718	4.732
35224	9	2.034	5.789
35225*	60	6.154	5.115
35226	18	15.974	5.550
35227	11	16.302	5.807
35228	13	20.492	5.366
35229	9	0.330	6.094
35230	10	8.011	6.989
35231	13	10.250	6.866
35232	19	11.326	6.570
35233	8	11.357	6.713
35234*	55	13.180	6.490
35235	8	16.052	6.258
35236	11	24.411	6.296
35237	8	2.700	7.935
35238	8	6.471	7.156
35239*	41	18.661	7.336
35240	8	19.954	7.789
35241	14	8.000	8.572
35242	12	13.026	8.823
35243	25	4.478	9.710
35244	9	6.518	9.419
35245*	33	7.886	9.580
35246*	60	10.046	9.276
35247	17	11.752	9.324
35248	11	20.744	9.368
35249*	60	24.466	9.107
35250	10	9.104	10.128
35251	9	12.756	10.039
35252	16	20.654	10.418
35253*	30	1.712	11.450
35254	12	3.336	11.678
35255	15	5.896	11.492

**R.A. 13<sup>h</sup> 8<sup>m</sup>**

Plate 520; 1915 Mar. 11.

*Provisional Constants.*

A	B	C
-01806	+00655	-0682

D	E	F
-00633	-01802	-0865

 $\text{Mag.} = 15.6 - 1.09\sqrt{d}$ 

No.	d	x	y
35350	17	1.665	0.988
35351*	67	2.504	0.686
35352	13	8.302	0.587
35353*	26	8.645	0.634
35354*	32	16.872	0.714
35355	22	17.186	0.037
35356	20	18.734	0.536
35357	12	21.675	0.434
35358	8	0.922	1.613
35359	11	5.274	1.704
35360	10	12.452	1.422
35361*	42	15.042	1.102
35362	8	15.805	1.486
35363	11	0.515	2.167
35364	8	5.556	2.413
35365	23	19.076	2.769
35366*	22	21.048	2.427
35367*	23	0.912	3.476
35368	10	7.404	3.867
35369	8	10.332	3.346
35370	12	10.485	3.268
35371	20	13.232	3.714
35372	8	21.830	3.586
35373*	24	22.090	3.564
35374	8	24.222	3.816
35375	16	1.986	4.051
35376	9	3.072	4.760
35377	15	15.351	4.781
35378	8	17.620	4.480
35379	22	25.998	4.455
35380	8	14.627	5.590
35381	11	16.655	5.116
35382	8	24.891	5.254
35383	10	1.768	6.336
35384	13	6.323	6.516
35385	10	9.420	6.931
35386	9	11.105	6.458
35387	14	18.272	6.456
35388	15	19.714	6.880
35389	12	20.938	6.246
35390	10	22.078	6.754
35391	9	5.748	7.480
35392*	60	6.450	7.426
35393	13	10.262	7.856
35394	12	4.110	8.038
35395*	30	6.830	8.152
35396	22	8.664	8.240
35397	17	13.394	8.917
35398	12	16.772	8.531
35399	8	24.382	8.090
35400	17	25.304	8.607
35401	8	25.360	8.658
35402*	43	1.834	9.144
35403	20	5.735	9.336
35404	18	19.638	9.374
35405	11	20.374	9.255

35406	11	12.498	10.266
35407	8	20.764	10.876
35408	12	23.669	10.872
35409	8	24.386	10.946
35410	11	25.342	10.158
35411	15	8.088	11.629
35412	8	8.294	11.866
35413*	25	14.878	11.348
35414	10	15.710	11.652
35415*	40	18.460	11.888
35416	8	21.817	11.624
35417	8	0.474	12.916
35418	8	1.672	12.817
35419	13	9.159	12.068
35420	8	9.648	12.499
35421	8	12.014	12.781
35422	8	14.617	12.679
35423	8	16.196	12.962
35424	14	20.860	12.294
35425	8	25.561	12.448
35426	15	8.816	13.020
35427	18	9.378	13.836
35428	13	12.598	13.165
35429	13	15.304	13.671
35430*	38	0.852	14.396
35431	9	5.341	14.474
35432	8	5.522	14.956
35433	8	9.378	14.746
35434	8	13.672	14.816
35435	16	15.770	14.782
35436	9	16.804	14.240
35437	20	25.889	14.310
35438	16	1.892	15.104
35439	8	8.354	15.830
35440	15	15.290	15.395
35441*	30	16.440	15.201
35442	8	25.728	15.490
35443	10	3.366	16.418
35444	8	3.878	16.442
35445*	20	5.200	16.972
35446*	26	8.128	16.206
35447	11	10.752	16.144
35448*	30	23.416	16.981
35449	10	24.478	16.302
35450	8	0.827	17.360
35451	8	6.729	17.398
35452	12	11.104	17.074
35453	8	11.371	17.623
35454	9	16.530	17.895
35455	8	20.774	17.666
35456	11	21.986	17.548
35457	10	23.754	17.778
35458	8	0.364	18.258
35459	9	3.920	18.470
35460	8	5.923	18.078
35461	18	14.773	18.526
35462	13	15.032	18.232
35463	12	18.936	18.043
35464	8	24.360	18.081
35465	9	3.058	19.188
35466	8	4.340	19.946
35467	11	4.954	19.160
35468	12	7.710	19.611
35469	12	11.090	19.914
35470	10	14.258	19.116
35471	8	18.744	19.236
35472	11	23.728	19.540
35473	8	7.746	20.744
35474	10	12.216	20.365
35475	13	16.608	20.766
35476	11	25.082	20.977
35477	8	8.878	21.928
35478	15	14.655	21.454
35479	9	14.880	21.732

35480	8	23.094	21.322
35481	20	9.611	22.871
35482	18	12.458	22.550
35483	14	22.536	22.333
35484	11	2.346	23.588
35485	14	12.526	23.524
35486	8	12.836	23.424
35487	8	19.312	23.174
35488	8	20.726	23.864
35489*	29	4.445	24.026
35490	14	6.336	24.054
35491	22	14.240	24.746
35492	21	16.703	24.580
35493	15	20.752	24.721
35494	9	22.155	24.254
35495	10	0.944	25.811
35496	20	8.575	25.644
35497	9	10.342	25.338
35498	25	14.366	25.998
35499	14	22.978	25.062
35500	12	23.446	25.981
35501	8	24.898	25.226

**R.A. 13<sup>h</sup> 16<sup>m</sup>**

Plate 521; 1915 Mar. 11.

*Provisional Constants.*

A	B	C
-01764	+00439	-1288

D	E	F
-00421	-01794	+1050

 $\text{Mag.} = 15.5 - 1.09\sqrt{d}$ 

No.	d	x	y
35550	11	6.544	0.526
35551	8	10.497	0.588
35552	17	12.024	0.586
35553	10	18.249	0.914
35554	8	18.276	0.188
35555	13	19.715	0.984
35556	12	22.928	0.184
35557	8	23.744	0.923
35558	16	4.574	1.228
35559	20	7.741	1.394
35560	21	12.774	1.956
35561	12	16.384	1.348
35562	8	23.746	1.644
35563	11	24.671	1.694
35564*	14	24.682	1.801
35565	10	5.853	2.476
35566	8	13.619	2.872
35567	20	14.896	2.766
35568	8	18.812	2.086
35569	13	18.910	2.694
35570*	28	23.902	2.084
35571	8	3.070	3.052
35572	9	8.653	3.663
35573*	29	10.104	3.141
35574	12	11.514	3.366
35575	8	12.622	3.113
35576	8	14.395	3.920



35577	8	14.837	3.034	35651	8	1.872	16.634	35806	8	16.944	6.144	35880*	65	20.248	13.125
35578	8	1.518	4.150	35652	14	5.078	16.792	35807	7	20.476	6.908	35881	24	23.785	13.186
35579*	25	3.300	4.774	35653	13	10.328	16.889	35808*	75	20.984	6.145	35882	14	0.818	14.582
35580	8	5.623	4.582	35654	8	10.421	16.505	35809	14	1.544	7.544	35883	14	0.994	14.272
35581	11	8.842	4.072	35655	13	17.306	16.503	35810	38	2.208	7.630	35884	19	3.292	14.681
35582	14	14.536	4.270	35656	8	17.458	16.428	35811*	60	6.950	7.950	35885	33	5.182	14.614
35583	14	25.004	4.520	35657*	26	17.570	16.676	35812	31	16.995	7.755	35886	9	7.478	14.444
35584	8	2.202	5.582	35658	12	25.078	16.074	35813	33	18.162	7.264	35887	10	12.930	14.900
35585	8	4.849	5.138	35659*	31	0.813	17.320	35814	8	18.936	7.007	35888	11	14.500	14.315
35586	8	15.290	5.628	35660	13	8.768	17.824	35815	35	19.006	7.964	35889	8	23.335	14.300
35587	11	16.223	5.564	35661	18	10.537	17.447	35816	8	20.838	7.662	35890	41	23.486	14.904
35588	8	22.985	5.641	35662	14	14.204	17.263	35817	37	23.316	7.316	35891	31	2.734	15.816
35589	8	2.302	6.196	35663*	31	14.715	17.590	35818	8	25.160	7.545	35892	11	4.816	15.362
35590	8	4.040	6.245	35664	8	15.399	17.357	35819	11	0.256	8.103	35893	35	6.382	15.105
35591	15	5.419	6.604	35665	8	21.750	17.802	35820	10	4.006	8.601	35894	8	6.534	15.874
35592	8	8.258	6.471	35666	10	1.163	18.115	35821	10	6.128	8.874	35895	14	11.782	15.686
35593*	26	8.392	6.025	35667	8	8.166	18.687	35822	8	7.876	8.532	35896	32	13.208	15.285
35594	8	8.907	6.754	35668	20	10.688	18.278	35823*	46	8.836	8.250	35897	10	13.756	15.209
35595	10	14.671	6.746	35669*	40	16.602	18.782	35824	34	11.294	8.234	35898	10	14.287	15.557
35596	8	16.810	6.559	35670	10	1.148	19.878	35825	8	16.988	8.705	35899	45	16.014	15.500
35597*	28	19.404	6.722	35671	20	4.484	19.139	35826	14	17.795	8.577	35900	10	17.663	15.948
35598	18	4.274	7.770	35672*	27	16.604	19.200	35827	22	0.194	9.152	35901	13	18.566	15.724
35599	12	11.172	7.843	35673	8	19.906	19.290	35828	30	5.336	9.476	35902	38	18.724	15.604
35600	8	11.510	7.324	35674	9	20.799	19.684	35829	8	9.104	9.345	35903*	82	22.264	15.338
35601	8	22.374	7.484	35675	14	7.316	20.188	35830	11	13.102	9.484	35904	64	22.786	15.106
35602	9	23.955	7.726	35676	20	7.530	20.232	35831	8	14.544	9.038	35905	8	23.119	15.948
35603	21	24.626	7.820	35677*	28	9.947	20.454	35832	10	15.435	9.668	35906	8	23.584	15.586
35604	20	2.636	8.932	35678	8	10.748	20.308	35833	13	16.952	9.630	35907	8	2.592	16.174
35605	8	2.696	8.984	35679	15	15.610	20.660	35834	8	19.832	9.642	35908	8	18.872	16.074
35606	8	4.296	8.803	35680*	31	17.099	20.800	35835	32	20.916	9.906	35909	8	20.377	16.166
35607*	52	5.368	8.232	35681	8	25.586	20.458	35836	8	21.326	9.776	35910	8	2.905	17.898
35608	12	8.142	8.876	35682	12	2.514	21.304	35837	7	2.944	10.774	35911	8	3.440	17.235
35609	11	11.426	8.414	35683	8	3.154	21.362	35838	36	5.156	10.802	35912	11	4.214	17.000
35610	12	11.762	8.238	35684*	80	4.748	21.824	35839	8	7.952	10.752	35913	7	6.284	17.824
35611	20	12.378	8.430	35685	18	5.146	21.130	35840	8	8.698	10.004	35914*	92	6.701	17.322
35612*	21	15.992	8.352	35686	18	8.556	21.177	35841	8	10.407	10.854	35915	9	12.128	17.594
35613	11	16.826	8.763	35687	8	15.839	21.872	35842	12	12.412	10.420	35916	40	16.316	17.119
35614	15	16.848	8.126	35688*	33	16.980	21.914	35843	9	20.144	10.048	35917	27	16.702	17.715
35615*	18	20.436	8.200	35689*	37	19.666	21.416	35844	19	24.479	10.400	35918	8	20.519	17.356
35616	8	22.650	8.277	35690*	28	3.739	22.263	35845	43	24.856	10.681	35919	8	0.883	18.616
35617	12	12.314	9.470	35691	12	7.531	22.238	35846	8	25.470	10.674	35920	9	7.116	18.017
35618	8	13.626	9.240	35692	17	11.280	22.947	35847	8	4.995	11.424	35921*	75	7.862	18.540
35619	14	22.576	9.334	35693	10	14.783	22.260	35848	10	6.055	11.985	35922	8	8.024	18.842
35620	12	2.686	10.480	35694	8	17.189	22.749	35849	8	8.384	11.548	35923	12	9.846	18.947
35621	13	7.108	10.752	35695	18	17.880	22.258	35850	11	9.758	11.526	35924	9	10.300	18.124
35622	8	10.518	10.025	35696	9	18.568	22.074	35851	8	10.635	11.266	35925	28	11.222	18.102
35623	12	14.878	10.955	35697	8	20.752	22.470	35852	8	11.308	11.418	35926	29	12.266	18.800
35624	8	16.104	10.607	35698	8	22.534	22.930	35853	8	11.714	11.715	35927	46	12.418	18.504
35625	11	16.268	10.546	35699	13	8.250	23.836	35854	14	13.573	11.110	35928	33	17.489	18.201
35626	12	17.928	10.005	35700	8	9.050	23.880	35855	11	14.918	11.590	35929	43	18.388	18.927
35627	8	20.419	10.750	35701	8	10.390	23.656	35856	8	15.233	11.144	35930	8	21.840	18.338
35628	11	20.624	10.533	35702*	40	10.638	23.428	35857	12	15.476	11.024	35931	43	22.074	18.514
35629	14	1.020	11.209	35703	12	18.678	23.142	35858	43	19.654	11.506	35932	8	4.486	19.160
35630	8	1.738	11.278	35704*	33	21.082	23.042	35859	40	23.942	11.455	35933	8	7.206	19.226
35631	10	4.226	11.336	35705	8	6.406	24.074	35860	41	24.696	11.024	35934	24	8.465	19.486
35632	8	11.519	11.589	35706*	22	7.716	24.703	35861	8	25.940	11.874	35935	13	16.640	19.370
35633	8	2.926	12.770	35707*	30	8.028	24.628	35862	12	5.756	12.068	35936	10	25.583	19.565
35634	8	15.317	12.742	35708	8	14.770	24.091	35863	8	9.630	12.574	35937	10	3.285	20.163
35635	11	19.404	12.631	35709	15	16.894	24.265	35864	41	10.766	12.795	35938*	48	11.233	20.606
35636	8	23.550	13.438	35710	9	19.806	24.434	35865	24	11.148	12.616	35939	26	11.286	20.573
35637	22	24.210	13.930	35711	9	25.615	24.473	35866	8	12.942	12.840	35940	13	17.334	20.858
35638	20	24.612	13.497	35712	20	0.445	25.401	35867	9	13.560	12.698	35941	13	21.206	20.174
35639	21	3.266	14.629	35713	8	15.603	25.557	35868	8	15.368	12.462	35942	9	22.685	20.872
35640	18	17.234	14.456	35714	14	18.119	25.004	35869	8	20.642	12.806	35943	8	1.063	21.023
35641	13	18.940	14.180	35715	10	21.169	25.228	35870	8	21.472	12.924	35944	8	8.856	21.958
35642	8	23.156	14.808	35716*	24	24.664	25.359	35871	8	22.825	12.792	35945*	67	8.992	21.700
35643	11	23.334	14.499					35872	8	25.062	12.035	35946	17	12.015	21.041
35644	11	25.649	14.936					35873	56	1.854	13.696	35947	8	12.506	21.861
35645	10	3.696	15.090					35874	40	2.248	13.263	35948	22	13.344	21.174
35646	8	4.412	15.964					35875	22	4.436	13.942	35949	8	13.784	21.236
35647	8	6.199	15.619					35876	41	5.095	13.971	35950	8	13.876	21.214
35648	8	9.637	15.848					35877	8	9.189	13.914	35951	45	15.145	21.394
35649	9	12.371	15.509					35878	12	13.216	13.106	35952	8	16.110	21.154
35650*	80	17.394	15.298					35879	38	19.399	13.080	35953	8	19.214	21.923

R.A. 13<sup>h</sup> 24<sup>m</sup>

Plate 611; 1916 Mar. 2.

Provisional Constants.

A B C  
-02576 +00382 +0863D E F  
-00377 -02582 -1210

Mag. = 18.2 - 1.09√d

No.	d	x	y
35750	30	0.463	0.068
35751	9	1.274	0.794
35752	34	6.253	0.974
35753	34	6.550	0.216
35754	8	12.261	0.194
35755	8	18.038	0.436
35756	8	18.662	0.174
35757	45	20.876	0.618
35758	36	21.285	0.034
35759	8	1.286	1.512
35760*	66	1.438	1.944
35761	16	2.200	1.552
35762*	31	2.214	1.654
35763	8	5.815	1.859
35764	40	7.750	1.858
35765	17	13.630	1.255
35766*	45	13.664	1.374
35767	9	19.396	1.043
35768	48	21.345	1.458
35769*	84	21.792	1.254
35770*	78	4.240	2.674
35771	8	4.302	2.663
35772	8	4.784	2.793
35773	14	5.782	2.395
35774	36	9.155	2.539
35775	9	19.306	2.843
35776	52	21.774	2.012
35777	8	1.406	3.311
35778	8	3.444	3.181
35779	15	5.446	3.230
35780	35	5.571	3.420
35781	8	10.889	3.914
35782	15	18.268	3.709
35783	8	24.562	3.612
35784	14	25.502	3.746
35785	36	2.558	4.350
35786*	104	3.636	4.834
35787	35	4.734	4.297
35788	7	5.611	4.477
35789	8	6.701	4.562
35790	31	11.420	4.428
35791	11	16.962	4.854
35792	8	17.723	4.596
35793	45	23.526	4.796
35794	10	0.566	5.484
35795	17	0.585	5.748
35796	40	4.834	5.900
35797	18	6.518	5.114
35798	16	13.215	5.200
35799	8	15.500	5.489
35800	8	19.864	5.334
35801	11	21.804	5.945
35802	36	23.494	5.556
35803	30	4.945	6.664
35804*	75	10.622	6.562
35805	33	15.430	6.656



35954	25	24.734	21.752	36013	8	6.717	1.330	36087	36	0.946	7.481	36161	12	19.083	12.808	36235	8	4.926	18.574
35955	44	25.308	21.928	36014*	44	7.166	1.109	36088	10	2.794	7.683	36162	15	19.881	12.397	36236	8	9.528	18.882
35956	8	0.282	22.639	36015	12	7.188	1.603	36089	36	3.645	7.668	36163*	48	20.728	12.236	36237	10	13.088	18.405
35957	25	4.046	22.074	36016	38	8.214	1.032	36090*	56	3.912	7.485	36164	9	21.516	12.425	36238	13	15.196	18.883
35958	10	7.635	22.686	36017	21	13.231	1.662	36091	8	6.557	7.022	36165	26	25.132	12.534	36239	17	17.632	18.724
35959	30	9.254	22.650	36018	16	18.384	1.642	36092	40	7.477	7.027	36166	29	1.485	13.346	36240	12	19.626	18.223
35960	9	20.382	22.916	36019	14	21.776	1.983	36093*	40	11.878	7.241	36167	8	3.501	13.418	36241	34	25.235	18.322
35961	8	20.884	22.346	36020	10	23.226	1.784	36094	9	14.989	7.784	36168	15	4.352	13.918	36242	11	0.798	19.162
35962	8	6.006	23.260	36021	28	24.944	1.122	36095	16	16.380	7.514	36169	8	11.865	13.777	36243	10	1.224	19.050
35963	18	10.786	23.936	36022	10	2.334	2.017	36096	8	16.745	7.125	36170	17	13.956	13.838	36244	32	3.362	19.699
35964	21	10.826	23.406	36023	12	6.915	2.241	36097	36	17.507	7.552	36171	12	17.015	13.403	36245	38	4.111	19.904
35965	8	12.796	23.444	36024	8	7.384	2.655	36098	8	8.138	8.006	36172	8	17.407	13.504	36246	16	6.610	19.746
35966	26	14.950	23.510	36025	19	9.949	2.628	36099	13	9.678	8.898	36173	10	18.340	13.964	36247	36	9.438	19.686
35967	12	15.624	23.306	36026	13	10.700	2.979	36100	8	9.998	8.342	36174	28	20.415	13.756	36248	11	10.294	19.244
35968	12	21.725	23.258	36027	10	12.026	2.113	36101	9	10.266	8.232	36175	13	21.853	13.653	36249	18	10.654	19.036
35969	8	25.872	23.888	36028	10	12.616	2.156	36102	20	10.492	8.544	36176	12	25.135	13.485	36250	13	13.045	19.467
35970	8	25.944	23.850	36029	28	17.859	2.687	36103	8	10.695	8.734	36177	54	25.146	13.063	36251	11	13.116	19.946
35971	13	3.356	24.143	36030	*42	19.295	2.586	36104	15	12.058	8.353	36178	8	0.978	14.728	36252	16	13.364	19.362
35972	8	8.484	24.086	36031	8	24.551	2.499	36105	15	12.835	8.740	36179	16	1.046	14.462	36253	8	18.844	19.154
35973	10	13.010	24.620	36032	36	24.936	2.015	36106	8	13.006	8.447	36180	10	1.867	14.044	36254	13	20.236	19.188
35974*	80	17.352	24.199	36033	14	2.144	3.760	36107	8	16.976	8.958	36181	9	6.026	14.452	36255	16	0.484	20.974
35975	9	18.658	24.044	36034	21	3.086	3.884	36108	8	19.790	8.462	36182	15	7.874	14.984	36256	16	3.718	20.458
35976	8	22.396	24.894	36035*	42	5.244	3.646	36109	8	21.404	8.582	36183	12	7.954	14.820	36257	24	5.631	20.226
35977*	82	24.258	24.171	36036	16	8.388	3.795	36110	8	22.435	8.195	36184	10	8.075	14.617	36258	8	7.235	20.135
35978	9	25.208	24.754	36037	27	9.014	3.827	36111	15	23.835	8.206	36185	8	11.070	14.140	36259	11	12.148	20.566
35979*	70	2.417	25.036	36038	38	10.145	3.106	36112	13	4.542	9.756	36186	8	11.414	14.955	36260	16	12.208	20.062
35980	10	4.544	25.644	36039	8	10.434	3.094	36113	12	4.977	9.496	36187	18	12.348	14.246	36261	13	12.241	20.444
35981	16	6.197	25.845	36040	10	13.026	3.553	36114	34	6.376	9.076	36188	8	14.990	14.306	36262	8	13.656	20.526
35982	8	7.269	25.517	36041	22	14.342	3.849	36115	15	8.600	9.634	36189	19	15.216	14.654	36263	14	14.706	20.886
35983	13	13.928	25.424	36042*	44	14.636	3.230	36116	8	11.726	9.975	36190	32	16.244	14.416	36264	8	14.976	20.094
35984	8	14.706	25.372	36043	40	24.338	3.545	36117	9	12.498	9.826	36191	13	16.817	14.374	36265	13	16.755	20.506
35985	8	15.418	25.144	36044	36	1.120	4.956	36118	8	13.053	9.480	36192	8	18.726	14.034	36266	12	18.586	20.235
35986	8	16.448	25.078	36045	12	3.503	4.264	36119	10	13.072	9.908	36193	13	19.158	14.192	36267	14	21.568	20.728
35987	9	17.462	25.166	36046	8	3.648	4.586	36120	9	14.395	9.060	36194	20	20.507	14.704	36268	8	23.338	20.234
35988	8	20.383	25.323	36047	8	7.165	4.874	36121	24	2.145	10.547	36195	16	22.058	14.984	36269	8	24.484	20.728
35989	8	22.745	25.269	36048*	44	7.464	4.775	36122	36	2.524	10.825	36196	10	23.164	14.402	36270	12	2.506	21.494
				36049	12	7.522	4.791	36123	12	3.140	10.812	36197	40	0.507	15.276	36271	30	2.542	21.897
				36050	10	8.818	4.552	36124*	52	4.596	10.718	36198	34	1.204	15.064	36272	11	3.614	21.118
				36051	8	10.688	4.505	36125	15	5.466	10.404	36199	12	1.315	15.746	36273	12	3.622	21.575
				36052	16	14.116	4.312	36126	36	6.143	10.168	36200	8	7.728	15.553	36274	13	7.495	21.934
				36053	34	17.064	4.136	36127	36	6.228	10.558	36201	8	9.054	15.768	36275	21	8.145	21.233
				36054	11	17.454	4.732	36128	10	7.027	10.041	36202	8	9.106	15.944	36276	8	12.456	21.788
				36055	40	22.616	4.061	36129	11	8.614	10.314	36203	14	11.962	15.582	36277	8	13.920	21.512
				36056	8	22.900	4.382	36130	15	8.961	10.153	36204	15	14.046	15.076	36278	9	14.291	21.096
				36057	14	23.248	4.732	36131*	36	12.278	10.306	36205*	38	15.726	15.997	36279	10	19.794	21.901
				36058	17	23.578	4.217	36132	11	12.440	10.625	36206	17	16.556	15.279	36280	17	20.906	21.058
				36059	53	25.140	4.338	36133	10	12.561	10.046	36207	16	21.275	15.418	36281	9	21.642	21.772
				36060	28	1.102	5.716	36134	16	12.770	10.102	36208*	60	22.484	15.855	36282	8	22.843	21.217
				36061	11	4.612	5.054	36135	8	15.894	10.066	36209	36	22.735	15.158	36283	17	24.455	21.597
				36062	8	6.728	5.690	36136	9	19.612	10.290	36210	8	24.684	15.536	36284	42	3.114	22.066
				36063	8	7.296	5.273	36137*	60	21.653	10.601	36211	9	25.364	15.306	36285	8	6.964	22.693
				36064*	60	7.584	5.706	36138	8	24.053	10.254	36212	10	0.850	16.116	36286	10	8.436	22.135
				36065	9	7.932	5.759	36139	21	24.752	10.696	36213	13	2.525	16.540	36287	15	8.863	22.256
				36066	14	8.582	5.422	36140*	46	24.789	10.393	36214	8	3.645	16.926	36288	13	9.014	22.264
				36067	8	9.166	5.420	36141	34	1.618	11.610	36215	15	4.426	16.685	36289	12	11.158	22.150
				36068	14	9.851	5.905	36142	36	2.366	11.170	36216	8	11.080	16.670	36290	8	13.985	22.374
				36069	8	11.744	5.324	36143	26	3.716	11.927	36217	12	12.764	16.244	36291	16	16.174	22.912
				36070	25	14.651	5.908	36144	19	3.774	11.138	36218	36	21.276	16.052	36292	34	18.498	22.434
				36071	15	17.399	5.518	36145	9	4.006	11.308	36219	11	22.935	16.623	36293	24	19.724	22.905
				36072	18	17.942	5.572	36146	36	10.466	11.381	36220	10	25.462	16.835	36294	15	19.926	22.508
				36073	17	18.134	5.360	36147	26	14.214	11.626	36221	36	25.834	16.273	36295*	40	20.162	22.842
				36074	15	18.144	5.336	36148	12	15.366	11.972	36222	8	4.786	17.235	36296	26	20.612	22.256
				36075	17	18.888	5.070	36149	10	16.534	11.724	36223	8	6.259	17.476	36297	16	23.366	22.952
				36076	13	25.704	5.204	36150	32	19.004	11.058	36224	14	7.301	17.104	36298	16	23.498	22.166
				36077	9	3.194	6.816	36151	16	21.264	11.698	36225	12	7.952	17.036	36299	37	23.542	22.386
				36078	26	5.607	6.390	36152	19	24.750	11.829	36226	8	9.454	17.224	36300	36	24.492	22.556
				36079															



36309	28	15.170	23.491	36404	8	7.452	0.066	36478	22	9.955	5.039	36552	10	20.012	9.126	36626	29	13.473	15.310
36310	14	16.284	23.828	36405*	42	7.540	0.635	36479	14	11.487	5.604	36553	8	20.404	9.606	36627*	41	13.522	15.248
36311	14	16.306	23.214	36406	10	8.228	0.387	36480	12	12.205	5.999	36554	10	21.112	9.860	36628	17	13.664	15.556
36312	16	17.926	23.583	36407*	58	9.436	0.650	36481	9	12.580	5.270	36555	9	24.178	9.416	36629	8	17.844	15.014
36313	14	18.834	23.014	36408	8	9.512	0.660	36482	23	13.925	5.206	36556	8	1.630	10.190	36630	21	18.585	15.486
36314	8	22.284	23.516	36409	8	11.872	0.649	36483	10	14.583	5.064	36557	28	2.332	10.626	36631	8	19.015	15.536
36315	11	24.196	23.816	36410	8	12.726	0.263	36484	10	16.599	5.374	36558*	52	2.364	10.325	36632	11	20.604	15.264
36316*	58	2.092	24.318	36411	9	12.898	0.204	36485	8	17.122	5.995	36559	20	4.165	10.012	36633	11	20.682	15.644
36317	22	3.056	24.892	36412	29	13.732	0.440	36486	21	22.618	5.162	36560	8	4.572	10.839	36634	12	21.777	15.972
36318	8	3.166	24.466	36413	32	14.215	0.026	36487	12	1.154	6.766	36561	31	5.756	10.054	36635	17	22.423	15.384
36319	21	3.706	24.016	36414	12	19.964	0.122	36488	11	2.246	6.595	36562	14	10.475	10.602	36636	11	0.552	16.564
36320	8	6.767	24.520	36415	10	24.226	0.365	36489	26	3.962	6.814	36563	10	12.700	10.346	36637	10	3.081	16.762
36321	8	8.283	24.826	36416	10	0.754	1.722	36490	12	6.394	6.455	36564	10	14.636	10.174	36638	33	3.446	16.195
36322	8	10.443	24.246	36417	8	1.454	1.032	36491	24	8.490	6.622	36565	8	15.658	10.116	36639	12	4.152	16.688
36323	20	11.315	24.897	36418	33	2.467	1.943	36492	10	10.506	6.038	36566	14	16.602	10.234	36640	17	7.666	16.188
36324	8	12.418	24.688	36419	25	2.467	1.048	36493	10	11.468	6.266	36567	8	17.772	10.650	36641	10	7.932	16.503
36325	17	13.204	24.631	36420	32	11.687	1.813	36494	15	11.925	6.068	36568	14	17.935	10.277	36642	16	8.368	16.738
36326	10	13.541	24.924	36421	8	12.185	1.993	36495	8	12.229	6.811	36569	28	25.218	10.500	36643	10	9.248	16.720
36327	8	14.536	24.566	36422	13	12.746	1.080	36496	18	12.315	6.936	36570	25	2.337	11.761	36644	8	9.399	16.077
36328	8	16.052	24.229	36423	12	13.683	1.328	36497	11	14.390	6.018	36571	12	3.782	11.876	36645	9	11.858	16.368
36329	13	19.720	24.326	36424	18	17.440	1.650	36498	8	15.116	6.007	36572	13	5.544	11.267	36646*	62	17.324	16.184
36330	12	20.232	24.414	36425	16	22.972	1.406	36499	8	15.640	6.406	36573	11	10.260	11.470	36647*	89	18.383	16.590
36331	16	20.624	24.446	36426	10	4.071	2.679	36500	12	16.020	6.606	36574	16	12.138	11.592	36648	10	21.770	16.105
36332	14	20.644	24.933	36427	16	5.344	2.821	36501	10	17.154	6.206	36575	14	12.914	11.076	36649	34	25.415	16.392
36333	19	21.734	24.570	36428	11	5.632	2.213	36502	9	20.292	6.980	36576	8	13.424	11.408	36650	14	0.662	17.420
36334	40	22.380	24.264	36429	8	6.550	2.882	36503	17	20.580	6.211	36577	11	19.815	11.213	36651	10	2.478	17.322
36335	14	24.555	24.962	36430	9	7.692	2.899	36504	10	21.365	6.310	36578	27	2.724	12.465	36652	10	3.454	17.723
36336*	64	24.924	24.764	36431	9	12.152	2.295	36505*	53	22.440	6.331	36579*	57	2.736	12.992	36653	24	7.214	17.746
36337	10	25.515	24.043	36432	12	12.786	2.717	36506	55	25.789	6.914	36580	8	3.090	12.669	36654*	93	10.324	17.479
36338	16	0.245	25.062	36433	8	15.952	2.266	36507	24	5.592	7.544	36581	9	7.516	12.978	36655	10	14.085	17.700
36339	8	0.426	25.029	36434	41	16.313	2.951	36508*	54	7.502	7.021	36582	19	7.902	12.684	36656	10	17.476	17.080
36340	14	0.602	25.439	36435	8	18.186	2.279	36509	17	9.541	7.018	36583	15	9.658	12.091	36657	10	18.147	17.041
36341	13	1.286	25.794	36436	27	19.845	2.242	36510	10	11.001	7.494	36584	13	12.913	12.414	36658	11	20.786	17.877
36342	8	3.098	25.865	36437	9	21.282	2.302	36511	13	11.436	7.808	36585	8	16.015	12.652	36659	18	24.055	17.036
36343	16	5.776	25.268	36438	8	23.635	2.661	36512	17	11.821	7.042	36586	30	17.182	12.575	36660	15	25.256	17.267
36344	15	6.634	25.407	36439	10	24.030	2.569	36513	9	12.856	7.834	36587	19	17.976	12.234	36661	26	2.864	18.250
36345	8	11.121	25.164	36440*	49	24.064	2.463	36514	33	15.567	7.025	36588	8	18.717	12.766	36662	10	4.535	18.760
36346	15	15.978	25.218	36441	36	24.706	2.335	36515	8	16.953	7.626	36589	10	22.385	12.378	36663*	55	6.999	18.354
36347	21	16.496	25.942	36442	8	25.125	2.419	36516*	55	18.015	7.426	36590	22	22.600	12.897	36664	34	7.330	18.164
36348	8	17.398	25.707	36443	8	25.376	2.583	36517	8	20.876	7.823	36591*	43	22.628	12.024	36665	8	7.700	18.678
36349	26	19.666	25.155	36444	42	1.874	3.477	36518	10	21.742	7.144	36592	14	24.223	12.964	36666	26	9.358	18.440
36350	16	21.308	25.911	36445	8	2.100	3.579	36519	27	24.616	7.474	36593	8	1.381	13.830	36667	12	11.510	18.364
36351	20	21.494	25.350	36446	8	18.008	3.188	36520	14	1.400	8.146	36594	12	2.735	13.414	36668	9	11.814	18.532
36352	12	21.636	25.005	36447	9	19.402	3.654	36521	44	4.866	8.146	36595	18	4.185	13.444	36669	8	12.360	18.666
36353	9	21.864	25.710	36448	11	22.375	3.658	36522	27	9.104	8.379	36596	9	11.728	13.344	36670	26	15.082	18.556
36354	22	21.960	25.106	36449	8	24.655	3.570	36523	25	9.758	8.135	36597	8	11.973	13.335	36671*	70	15.225	18.320
36355	8	25.130	25.622	36450	41	24.926	3.793	36524*	33	10.090	8.950	36598	16	12.925	13.182	36672*	32	16.994	18.957
				36451	10	25.522	3.376	36525	8	11.224	8.170	36599	33	13.264	13.238	36673	14	17.040	18.818
				36452	8	25.936	3.035	36526	22	11.673	8.063	36600	8	14.464	13.752	36674	14	17.138	18.535
				36453	38	0.156	4.006	36527	8	14.560	8.257	36601	10	15.106	13.621	36675	11	17.915	18.430
				36454	12	0.793	4.670	36528	8	17.678	8.920	36602	8	15.558	13.055	36676	15	17.928	18.043
				36455	16	1.120	4.154	36529	10	18.692	8.506	36603	32	16.052	13.742	36677	8	21.025	18.992
				36456*	56	2.676	4.267	36530	10	18.872	8.933	36604	8	16.852	13.948	36678	25	25.952	18.822
				36457	11	3.883	4.348	36531	8	21.498	8.098	36605	25	18.578	13.868	36679	13	5.112	19.950
				36458	12	5.777	4.323	36532	8	22.134	8.818	36606*	40	19.308	13.348	36680	20	6.974	19.873
				36459	8	5.857	4.228	36533	9	22.694	8.863	36607	18	20.348	13.982	36681*	42	8.034	19.260
				36460	8	6.418	4.488	36534	13	23.249	8.806	36608	24	22.436	13.214	36682	8	10.502	19.326
				36461*	53	10.295	4.824	36535	8	23.327	8.970	36609	8	0.765	14.345	36683	16	11.774	19.567
				36462	8	10.535	4.264	36536	19	23.642	8.388	36610	10	3.914	14.757	36684*	32	11.974	19.284
				36463	10	10.578	4.316	36537	8	1.702	9.691	36611	24	5.396	14.702	36685	9	12.252	19.904
				36464	11	10.675	4.735	36538	8	3.886	9.082	36612	8	5.616	14.648	36686	10	14.732	19.784
				36465	9	12.739	4.786	36539*	56	4.899	9.705	36613	10	8.288	14.400	36687	8	17.233	19.318
				36466	22	13.888	4.624	36540	8	8.524	9.666	36614	11	10.370	14.122	36688	20	21.105	19.241
				36467	9	15.924	4.047	36541	8	9.854	9.893	36615*	53	10.914	14.868	36689	16	21.922	19.234
				36468	9	18.340	4.480	36542	26	10.478	9.400	36616	10	12.886	14.723	36690	20</		



36700	32	16.052	20.490	R.A. 13 <sup>h</sup> 48 <sup>m</sup> Plate 622; 1916 Mar. 5. Provisional Constants. A B C -02552 +00536 +2437 D E F -00548 -02606 -2186 Mag.=16.6-1.09√d	36856	13	10.419	4.186	36930	20	21.742	10.040	37004	15	0.236	15.484
36701	23	16.730	20.321		36857	9	10.852	4.426	36931	30	23.302	10.109	37005	29	4.949	15.335
36702	11	17.086	20.960		36858	14	13.650	4.179	36932	8	23.550	10.448	37006	10	5.077	15.276
36703	33	20.082	20.365		36859	16	14.419	4.676	36933	21	23.920	10.304	37007	8	6.118	15.002
36704	11	21.036	20.517		36860	12	16.488	4.900	36934	13	24.736	10.546	37008	22	6.764	15.768
36705	8	22.957	20.165		36861	8	17.204	4.383	36935	18	24.836	10.126	37009	8	7.142	15.230
36706	10	0.488	21.165		36862	8	17.547	4.294	36936	45	24.907	10.052	37010	10	7.516	15.738
36707	21	2.104	21.532		36863	8	18.676	4.204	36937	52	25.136	10.600	37011	18	8.886	15.416
36708	9	8.070	21.948		36864	19	18.916	4.708	36938	9	2.388	11.435	37012	22	11.297	15.107
36709	10	8.912	21.554		36865*	44	19.716	4.291	36939	9	4.252	11.338	37013	13	11.856	15.550
36710	26	13.210	21.772	36866	10	23.828	4.758	36940	8	4.268	11.769	37014	17	14.118	15.600	
36711	27	13.663	21.436	36867	19	0.298	5.260	36941	24	4.398	11.788	37015	12	16.106	15.823	
36712	32	14.750	21.295	36868	29	5.516	5.570	36942	11	4.482	11.854	37016*	39	16.774	15.199	
36713	12	17.870	21.188	36869	9	7.967	5.042	36943	14	4.875	11.687	37017	14	17.270	15.918	
36714*	46	18.355	21.856	36870	31	10.108	5.731	36944	8	9.068	11.039	37018	11	18.732	15.169	
36715	10	19.265	21.184	36871	13	13.468	5.714	36945	13	9.464	11.513	37019*	35	3.237	16.450	
36716	8	22.104	21.648	36872	17	16.577	5.173	36946	8	10.939	11.172	37020	15	6.022	16.893	
36717	11	22.932	21.461	36873	11	16.704	5.746	36947	12	11.488	11.776	37021	12	6.365	16.912	
36718	13	25.109	21.135	36874	10	23.454	5.260	36948	9	11.832	11.301	37022	33	6.999	16.479	
36719	20	1.026	22.892	36875	42	0.130	6.431	36949	11	12.560	11.526	37023	14	10.136	16.072	
36720	15	1.154	22.108	36876*	45	3.488	6.970	36950	10	12.680	11.662	37024	12	10.737	16.654	
36721	33	1.196	22.326	36877	12	5.089	6.931	36951	10	12.892	11.022	37025	15	12.872	16.700	
36722	34	2.145	22.490	36878	12	7.134	6.673	36952	15	14.152	11.771	37026	20	12.904	16.056	
36723	8	4.580	22.592	36879	10	12.404	6.858	36953	26	16.038	11.200	37027	11	13.548	16.938	
36724	10	5.298	22.835	36880	8	20.316	6.750	36954	11	17.242	11.173	37028	16	20.826	16.013	
36725	16	6.718	22.880	36881	8	23.370	6.950	36955	9	18.854	11.601	37029	16	22.072	16.345	
36726	8	8.674	22.129	36882	34	23.792	6.646	36956	16	23.790	11.437	37030	9	25.533	16.180	
36727	14	14.910	22.670	36883	8	24.371	6.047	36957	10	0.160	12.478	37031	18	1.890	17.110	
36728	15	21.496	22.644	36884	32	24.708	6.764	36958	18	0.376	12.996	37032	16	3.094	17.328	
36729	12	1.860	23.752	36885	22	2.324	7.545	36959	42	0.394	12.120	37033	24	4.028	17.550	
36730	12	3.184	23.974	36886	8	9.227	7.460	36960	14	4.082	12.316	37034	20	6.102	17.493	
36731	8	3.575	23.762	36887	9	9.453	7.512	36961	26	4.196	12.324	37035	17	6.128	17.488	
36732	24	13.519	23.454	36888	28	10.080	7.593	36962	10	4.618	12.616	37036	11	6.673	17.684	
36733	9	14.928	23.334	36889	8	13.543	7.105	36963	8	4.830	12.736	37037	16	8.666	17.773	
36734	17	15.540	23.938	36890	23	14.604	7.139	36964	8	7.753	12.032	37038	15	9.592	17.308	
36735	8	16.856	23.746	36891	10	18.754	7.040	36965	14	8.690	12.020	37039	12	9.640	17.834	
36736	25	17.046	23.384	36892*	53	23.561	7.300	36966	22	11.523	12.229	37040	35	14.472	17.616	
36737	23	18.834	23.214	36893	9	25.646	7.058	36967	10	12.807	12.326	37041	14	14.998	17.750	
36738	28	20.635	23.926	36894	8	0.425	8.958	36968	13	14.328	12.242	37042	41	15.200	17.190	
36739	17	24.298	23.764	36895	13	0.976	8.894	36969	12	14.984	12.188	37043	25	15.353	17.126	
36740	8	25.235	23.438	36896	18	1.364	8.474	36970	20	16.044	12.116	37044	29	15.516	17.699	
36741	39	0.045	24.211	36897	9	4.290	8.220	36971	20	17.334	12.875	37045	21	15.814	17.362	
36742	14	2.226	24.898	36898	9	5.296	8.688	36972	15	18.884	12.574	37046*	48	15.950	17.880	
36743*	69	2.585	24.692	36899	11	5.317	8.566	36973	9	19.404	12.771	37047	11	16.452	17.396	
36744	8	2.784	24.366	36900	14	9.401	8.126	36974	16	19.438	12.867	37048	8	18.796	17.084	
36745	11	7.414	24.417	36901	12	9.792	8.877	36975	16	21.974	12.449	37049	9	19.164	17.144	
36746	17	7.634	24.574	36902	12	12.057	8.980	36976	17	23.872	12.629	37050	21	19.165	17.307	
36747	23	8.556	24.488	36903	28	13.056	8.172	36977	20	0.222	13.312	37051	8	19.313	17.076	
36748	8	9.733	24.280	36904	33	15.460	8.946	36978	12	2.004	13.039	37052	35	19.776	17.244	
36749	8	9.980	24.963	36905*	75	15.540	8.722	36979	26	3.935	13.223	37053	16	20.514	17.022	
36750	30	10.364	24.202	36906	21	23.424	8.381	36980	10	5.466	13.730	37054	34	24.236	17.394	
36751	22	12.618	24.364	36907	9	1.058	9.054	36981	24	5.757	13.018	37055	8	2.880	18.494	
36752	10	13.070	24.368	36908	12	1.912	9.494	36982	8	9.512	13.884	37056	24	3.812	18.874	
36753	43	14.631	24.620	36909	11	3.894	9.374	36983	12	10.104	13.940	37057	10	5.110	18.662	
36754	15	14.840	24.010	36910	14	6.054	9.751	36984	20	11.509	13.754	37058	25	7.362	18.822	
36755	20	18.938	24.727	36911	8	6.650	9.120	36985	27	12.502	13.994	37059	13	8.338	18.278	
36756*	56	19.757	24.946	36912	8	12.474	9.646	36986	8	16.296	13.333	37060	18	14.469	18.373	
36757	45	20.300	24.362	36913	15	13.922	9.603	36987	8	22.377	13.718	37061	17	16.196	18.622	
36758	8	21.290	24.459	36914	10	14.920	9.954	36988	11	23.510	13.804	37062	9	19.668	18.628	
36759	8	22.268	24.910	36915	11	16.292	9.210	36989	20	24.564	13.585	37063	16	20.094	18.520	
36760	10	23.645	24.828	36916	9	19.077	9.080	36990	12	2.782	14.350	37064	16	20.940	18.677	
36761	8	2.807														



37078	18	18.777	19.255	37152	23	21.536	25.931	37246	22	0.085	3.079	37320	8	5.260	7.774	37394	18	1.340	11.580
37079	10	19.361	19.128	37153	20	21.572	25.797	37247	16	5.350	3.117	37321	20	5.354	7.254	37395	11	4.836	11.385
37080	29	20.677	19.684	37154	8	23.596	25.505	37248	11	5.512	3.379	37322	12	5.498	7.762	37396	12	4.972	11.203
37081	9	20.864	19.400					37249	8	9.015	3.145	37323	8	6.890	7.939	37397	10	6.264	11.086
37082	28	21.405	19.995					37250	10	11.660	3.369	37324	23	6.984	7.332	37398	8	6.445	11.487
37083	20	22.278	19.599					37251	8	12.100	3.268	37325	8	7.221	7.049	37399	10	6.844	11.616
37084	8	25.920	19.264					37252	14	12.163	3.222	37326	15	7.294	7.052	37400	13	7.992	11.621
37085	8	0.834	20.256					37253	20	13.342	3.167	37327	12	9.483	7.408	37401	9	8.542	11.312
37086	20	5.392	20.465					37254	12	13.829	3.733	37328	34	10.413	7.770	37402	9	13.814	11.750
37087	14	5.969	20.418					37255	11	15.614	3.799	37329	9	11.816	7.240	37403	8	15.664	11.166
37088	13	7.268	20.017					37256	8	16.028	3.573	37330	15	13.472	7.778	37404	12	16.190	11.339
37089	18	8.333	20.744					37257	14	18.750	3.557	37331	25	20.801	7.698	37405*	46	16.196	11.008
37090	8	8.806	20.472					37258	16	24.090	3.142	37332*	39	21.719	7.000	37406*	70	17.443	11.100
37091	11	10.276	20.907					37259	12	1.340	4.901	37333	11	25.033	7.598	37407	8	19.092	11.074
37092	10	10.832	20.230					37260	8	1.466	4.864	37334	28	25.264	7.584	37408	8	20.044	11.870
37093	12	11.329	20.950					37261	8	5.046	4.494	37335	8	0.770	8.236	37409	32	20.264	11.640
37094	19	11.553	20.542					37262	13	5.150	4.162	37336	23	0.954	8.528	37410	8	20.672	11.158
37095	18	14.244	20.850					37263	16	5.886	4.423	37337	8	1.034	8.564	37411	8	20.970	11.513
37096	22	16.941	20.990					37264	12	12.685	4.290	37338	8	1.319	8.466	37412	8	22.202	11.224
37097	19	18.394	20.352					37265	10	12.845	4.100	37339*	41	3.800	8.072	37413	21	22.576	11.566
37098	10	19.258	20.560					37266	9	13.778	4.928	37340	16	8.380	8.837	37414	8	23.748	11.894
37099	11	21.212	20.966					37267	23	13.945	4.350	37341	8	8.493	8.713	37415	15	25.662	11.850
37100	14	22.134	20.710					37268	8	16.978	4.002	37342	36	9.440	8.875	37416	21	1.430	12.774
37101	10	0.826	21.550					37269	8	17.851	4.100	37343	40	10.857	8.930	37417	10	1.813	12.814
37102	12	2.998	21.197					37270	11	18.424	4.980	37344	10	12.384	8.442	37418	10	4.300	12.898
37103	8	5.321	21.468					37271	8	18.450	4.771	37345	8	16.283	8.417	37419	8	6.790	12.422
37104	20	6.909	21.991					37272	9	19.083	4.658	37346	8	17.611	8.946	37420	8	10.408	12.489
37105	34	8.399	21.973					37273	8	20.729	4.696	37347	40	18.140	8.695	37421	9	12.788	12.242
37106	27	12.888	21.276					37274	8	21.173	4.325	37348	12	19.783	8.500	37422	9	14.225	12.006
37107	17	15.632	21.814					37275	32	25.536	4.520	37349	14	20.750	8.950	37423	10	16.082	12.028
37108*	46	19.496	21.238					37276	9	0.966	5.406	37350*	46	21.590	8.259	37424	32	17.946	12.552
37109	8	1.947	22.771					37277	8	1.300	5.260	37351	24	21.746	8.406	37425	13	19.950	12.810
37110	12	4.582	22.949					37278	8	3.926	5.625	37352	8	23.260	8.670	37426	16	20.800	12.666
37111	12	6.500	22.667					37279	23	4.100	5.274	37353	10	25.020	8.979	37427	8	22.049	12.190
37112	10	6.673	22.147					37280	8	6.194	5.376	37354	17	1.934	9.650	37428	28	24.098	12.250
37113*	57	7.760	22.502					37281	23	6.534	5.265	37355	12	2.881	9.523	37429	22	25.738	12.955
37114	16	8.944	22.024					37282	8	7.924	5.055	37356	20	3.140	9.830	37430	10	1.074	13.951
37115	13	11.529	22.237					37283	9	8.210	5.290	37357	13	6.100	9.400	37431	23	2.129	13.724
37116	10	17.528	22.284					37284	8	8.743	5.740	37358	8	9.468	9.244	37432	8	3.920	13.542
37117	9	19.475	22.668					37285	8	14.254	5.050	37359	8	10.196	9.680	37433	17	4.254	13.916
37118	14	20.848	22.032					37286	11	14.514	5.748	37360	16	10.205	9.746	37434	10	6.580	13.354
37119	16	21.738	22.135					37287	22	15.176	5.862	37361	13	10.353	9.718	37435	35	9.955	13.320
37120	10	23.682	22.259					37288	8	15.220	5.125	37362	21	14.610	9.089	37436	8	11.456	13.058
37121	15	2.224	23.834					37289	13	24.412	5.139	37363	23	14.886	9.724	37437	8	17.230	13.964
37122	9	3.158	23.500					37290	39	24.641	5.590	37364	8	15.828	9.675	37438*	51	17.600	13.900
37123	17	4.009	23.266					37291	34	1.310	6.788	37365	40	18.411	9.246	37439*	46	17.792	13.490
37124	16	4.960	23.193					37292	9	1.889	6.186	37366	8	18.504	9.364	37440	10	18.438	13.714
37125	19	8.525	23.774					37293	36	2.226	6.902	37367	19	19.728	9.610	37441	12	20.026	13.580
37126	29	9.368	23.054					37294	9	3.154	6.762	37368	9	19.796	9.810	37442	23	21.374	13.634
37127	15	11.752	23.660					37295	20	4.244	6.408	37369	11	21.365	9.025	37443	10	22.114	13.569
37128	23	14.490	23.538					37296	13	7.957	6.536	37370	20	24.014	9.896	37444	8	22.586	13.386
37129	22	15.292	23.180					37297	8	11.404	6.666	37371	21	24.834	9.300	37445	12	22.624	13.752
37130	15	15.996	23.334					37298	8	11.697	6.864	37372	8	24.910	9.827	37446	23	22.898	13.563
37131	11	18.394	23.934					37299	35	13.285	6.506	37373	13	25.225	9.028	37447	13	23.350	13.722
37132	9	19.000	23.844					37300	10	14.032	6.098	37374	33	0.844	10.256	37448	39	24.526	13.628
37133	11	19.778	23.254					37301	19	14.806	6.970	37375	9	1.094	10.594	37449	17	3.384	14.864
37134	8	22.182	23.558					37302	19	15.578	6.322	37376	26	1.464	10.448	37450*	47	4.663	14.101
37135*	43	23.535	23.557					37303	8	15.891	6.585	37377	17	2.282	10.684	37451	9	5.598	14.729
37136	11	1.586	24.910					37304	8	17.450	6.125	37378	22	2.380	10.263	37452*	42	5.892	14.148
37137	8	1.696	24.556					37305	8	17.505	6.720	37379	39	2.444	10.188	37453	16	7.470	14.220
37138	15	8.202	24.273					37306	21	18.320	6.668	37380*	53	2.676	10.736	37454	8	8.176	14.250
37139	8	8.583	24.266					37307	13	18.558	6.477	37381	24	7.600	10.200	37455	20	13.136	14.560
37140	20	11.630	24.807					37308	34	22.198	6.684	37382	8	10.460	10.756	37456	25	13.716	14.459
37141	12	12.496	24.604					37309	8	22.498	6.624	37383	37	11.420	10.200	37457	17	13.866	14.558
37142	18	14.246	24.414					37310	8	22.959	6.432	37384	22	13.945	10.730	37458	27	17.425	14.657
37143	8	19.528	24.896					37311	8	25.623	6.020	37385	25	13.985	10.884	37459	17	18.720	14.840
37144	9	19.619	24.448					37312	22	25.760	6.116	37386	39	18.990	10.300	37460	8	24.246	14.846
37145	8	20.522	24.407					37313	8	0.896	7.098	37387	8	19.392	10.774	37461	8	3.274	15.708
37146	12	24.583	24.672					37314*	51	1.079	7.445	37388	23	19.900	10.574	37462	8	3.859	15.429
37147	12	1.706	25.237					37315	9	3.002	7.421	37389	14	22.223	10.764	37463	12	4.320	15.555
37148	13	2.409																	



37468	25	12.851	15.769	37542	27	23.600	19.152	37616	24	8.829	23.320	37703	8	6.788	0.194	37777	8	15.045	5.725
37469	8	13.424	15.834	37543	10	23.782	19.031	37617	8	10.976	23.066	37704	13	6.918	0.620	37778	8	16.044	5.504
37470	15	13.500	15.882	37544	10	24.089	19.966	37618	10	11.300	23.094	37705	34	14.082	0.862	37779	21	16.204	5.824
37471	24	15.705	15.762	37545*	48	24.498	19.394	37619	12	11.750	23.254	37706	12	15.122	0.153	37780	8	16.866	5.676
37472*	47	15.765	15.365	37546*	55	24.515	19.494	37620	8	14.224	23.088	37707	8	15.403	0.362	37781	8	19.166	5.728
37473*	43	17.952	15.320	37547	8	3.318	20.848	37621	9	15.493	23.162	37708	8	23.876	0.764	37782	13	20.635	5.962
37474	8	18.045	15.483	37548	11	4.669	20.185	37622	8	18.075	23.566	37709	12	25.669	0.692	37783	34	21.525	5.212
37475	19	21.204	15.306	37549	8	4.820	20.817	37623	8	18.790	23.603	37710	10	1.584	1.674	37784	10	22.166	5.618
37476	22	23.146	15.250	37550	26	5.244	20.490	37624	44	18.864	23.628	37711	8	4.470	1.106	37785	8	0.082	6.683
37477	27	24.606	15.710	37551	17	5.828	20.650	37625	32	20.120	23.084	37712*	47	9.784	1.867	37786	9	3.200	6.038
37478	12	3.118	16.312	37552	12	6.711	20.516	37626	9	22.476	23.148	37713	18	10.850	1.406	37787	20	3.337	6.134
37479	8	3.196	16.150	37553	8	6.805	20.576	37627	15	23.488	23.570	37714	9	11.380	1.184	37788	11	5.622	6.983
37480	8	3.419	16.796	37554	8	8.800	20.440	37628	10	2.226	24.810	37715	8	13.320	1.122	37789	20	5.940	6.256
37481	9	4.952	16.550	37555	8	10.543	20.472	37629	8	3.838	24.330	37716	18	15.994	1.782	37790	25	6.858	6.214
37482	9	4.998	16.500	37556	24	11.732	20.863	37630	8	4.183	24.522	37717	11	16.226	1.404	37791	8	6.933	6.464
37483	8	7.134	16.380	37557	11	12.480	20.879	37631	20	6.398	24.676	37718	8	17.549	1.496	37792	23	11.440	6.992
37484*	44	7.569	16.590	37558	9	12.725	20.770	37632	8	7.309	24.454	37719	28	20.665	1.024	37793	8	14.614	6.214
37485	14	7.643	16.612	37559	8	12.811	20.664	37633	8	8.864	24.158	37720	27	0.070	2.979	37794	34	15.152	6.236
37486	8	13.962	16.854	37560	8	15.284	20.992	37634	8	9.170	24.504	37721	10	0.544	2.518	37795	36	16.145	6.999
37487	8	15.851	16.429	37561	13	15.478	20.833	37635	8	11.022	24.768	37722	33	0.762	2.492	37796	9	17.856	6.776
37488	8	19.434	16.474	37562	11	16.274	20.944	37636	10	11.266	24.874	37723	9	1.538	2.043	37797	8	20.300	6.294
37489*	39	20.078	16.920	37563	9	16.414	20.200	37637	10	11.672	24.745	37724	8	3.884	2.840	37798	8	21.105	6.754
37490	31	23.286	16.868	37564	22	18.746	20.996	37638	14	12.350	24.401	37725	10	8.079	2.881	37799	14	21.972	6.272
37491*	43	23.450	16.478	37565	8	19.176	20.922	37639	16	12.584	24.524	37726	11	10.555	2.762	37800	32	24.002	6.406
37492	22	23.486	16.126	37566	11	19.460	20.009	37640	10	13.441	24.436	37727	18	13.234	2.662	37801	13	24.780	6.524
37493	37	1.826	17.532	37567	15	19.509	20.372	37641	8	14.086	24.053	37728	26	14.106	2.403	37802	10	2.630	7.625
37494	8	2.071	17.099	37568	25	19.626	20.845	37642	15	15.274	24.222	37729	8	16.494	2.811	37803	20	2.859	7.606
37495	8	8.210	17.076	37569	23	19.640	20.609	37643	47	16.091	24.128	37730	16	16.540	2.301	37804	8	5.189	7.388
37496	29	8.662	17.072	37570	10	20.348	20.110	37644	8	17.437	24.775	37731	8	16.668	2.653	37805	33	5.496	7.435
37497	42	8.804	17.960	37571	30	25.791	20.632	37645	8	17.572	24.964	37732	8	17.158	2.234	37806	10	5.505	7.284
37498	8	9.696	17.770	37572	8	3.531	21.328	37646	37	18.308	24.380	37733	8	17.955	2.205	37807	36	6.456	7.023
37499*	52	13.988	17.240	37573	14	4.796	21.036	37647	8	19.595	24.468	37734	11	19.782	2.591	37808	8	10.430	7.768
37500	21	16.488	17.931	37574	8	5.984	21.803	37648	18	21.265	24.774	37735	10	20.112	2.996	37809	18	10.630	7.126
37501	8	20.660	17.724	37575	8	6.007	21.172	37649	32	21.768	24.788	37736	13	1.632	3.181	37810	12	11.998	7.674
37502	8	21.265	17.351	37576	9	6.792	21.738	37650	21	23.854	24.383	37737	17	3.639	3.598	37811	23	12.432	7.184
37503	20	21.638	17.300	37577	11	15.264	21.296	37651	8	24.153	24.239	37738	33	6.132	3.556	37812	10	13.785	7.765
37504	19	22.949	17.666	37578	10	16.094	21.812	37652	9	1.241	25.652	37739	25	7.052	3.186	37813	22	15.866	7.644
37505*	39	23.620	17.437	37579	8	18.831	21.674	37653	53	3.938	25.694	37740	8	7.956	3.921	37814	8	15.995	7.710
37506	14	23.662	17.029	37580	8	19.252	21.364	37654	19	4.440	25.993	37741	8	9.096	3.020	37815	20	17.566	7.430
37507	9	24.015	17.622	37581	8	19.326	21.625	37655	8	5.684	25.772	37742	14	10.423	3.811	37816*	47	17.859	7.165
37508	17	24.167	17.858	37582	22	20.273	21.340	37656	69	6.190	25.767	37743	13	11.649	3.750	37817	8	18.107	7.978
37509	9	24.280	17.776	37583	12	22.136	21.030	37657	10	6.285	25.361	37744	11	12.214	3.468	37818	8	21.128	7.898
37510	10	25.222	17.180	37584	43	22.492	21.394	37658	8	6.691	25.300	37745	23	14.123	3.031	37819	10	22.502	7.468
37511	18	25.617	17.182	37585	8	22.988	21.210	37659	38	8.030	25.523	37746	8	15.455	3.991	37820	9	23.685	7.265
37512	28	0.380	18.477	37586	16	23.950	21.162	37660	8	10.407	25.991	37747	16	18.025	3.329	37821	9	0.873	8.717
37513	18	0.773	18.704	37587	9	24.406	21.964	37661	11	10.688	25.580	37748	40	21.694	3.011	37822	12	3.654	8.769
37514	14	6.593	18.404	37588	8	24.694	21.386	37662	27	12.864	25.264	37749	11	21.954	3.049	37823	23	4.192	8.384
37515	8	7.780	18.360	37589	11	25.480	21.972	37663	17	15.400	25.580	37750	8	23.522	3.539	37824	30	4.500	8.198
37516	24	8.591	18.699	37590	10	1.310	22.402	37664	20	19.396	25.593	37751	28	3.092	4.538	37825	9	5.536	8.872
37517	26	9.774	18.884	37591	8	1.964	22.654	37665	32	23.027	25.542	37752	8	4.352	4.804	37826	11	5.576	8.882
37518	17	11.022	18.372	37592	22	6.054	22.794					37753	24	5.035	4.196	37827	20	8.023	8.223
37519	17	12.006	18.987	37593	8	6.798	22.258					37754	15	6.269	4.765	37828	20	8.770	8.786
37520	12	12.809	18.360	37594	21	7.660	22.800					37755	8	7.101	4.352	37829	8	10.494	8.013
37521	12	13.276	18.684	37595	15	9.207	22.662					37756	23	9.533	4.224	37830	13	11.625	8.494
37522	32	21.136	18.872	37596	10	9.500	22.661					37757	9	10.518	4.858	37831	10	12.566	8.295
37523	12	21.754	18.080	37597	8	9.806	22.600					37758	8	16.278	4.186	37832	21	13.518	8.770
37524	29	21.914	18.810	37598	8	12.362	22.245					37759	13	17.734	4.896	37833	8	15.078	8.438
37525	8	1.472	19.054	37599	8	12.400	22.200					37760	40	17.968	4.660	37834	11	15.364	8.076
37526	10	3.524	19.394	37600	8	12.654	22.006					37761	8	19.916	4.971	37835	10	15.428	8.289
37527	9	3.547	19.608	37601	21	14.104	22.054					37762	20	20.940	4.531	37836	12	15.724	8.815
37528	8	5.053	19.470	37602	13	14.576	22.000					37763	8	22.074	4.974	37837	13	18.402	8.886
37529	15	5.555	19.364	37603	8	16.190	22.894					37764*	40	22.466	4.207	37838	8	19.951	8.270
37530*	44	6.085	19.728	37604	8	17.544	22.500					37765	12	22.636	4.167	37839	8	21.800	8.576
37531	8	9.564	19.950	37605	21	18.786	22.830					37766	8	23.474	4.211	37840	10	23.184	8.888
37532*	43	11.392	19.784	37606	8	18.836	22.934					37767	21						



37851	8	9.566	9.570	37925	17	20.014	13.033	37999	12	0.676	17.722	38073	31	21.899	20.354	38147	8	13.064	24.525
37852	8	12.155	9.526	37926	8	20.052	13.969	38000*	31	1.344	17.484	38074	8	23.676	20.876	38148	10	13.143	24.134
37853	22	12.642	9.548	37927	20	22.066	13.936	38001	12	1.384	17.074	38075	13	23.758	20.186	38149	24	13.724	24.954
37854	8	14.404	9.598	37928	10	24.160	13.336	38002	10	1.745	17.662	38076	38	0.266	21.454	38150	23	13.966	24.473
37855	12	15.217	9.734	37929	8	24.345	13.600	38003	12	1.900	17.898	38077	8	0.766	21.265	38151	25	14.930	24.066
37856	8	16.656	9.857	37930	8	1.866	14.644	38004	9	2.011	17.814	38078	10	1.728	21.202	38152	8	18.274	24.285
37857	14	16.665	9.926	37931	8	1.938	14.884	38005	10	2.948	17.202	38079	9	2.195	21.998	38153	12	18.860	24.133
37858	10	16.942	9.226	37932*	40	3.964	14.943	38006	14	3.344	17.200	38080	8	2.475	21.415	38154	10	19.245	24.036
37859	19	18.776	9.466	37933	10	4.525	14.336	38007	8	5.324	17.275	38081	11	3.267	21.994	38155	10	19.733	24.636
37860	12	2.835	10.724	37934	20	5.420	14.052	38008	8	7.769	17.215	38082	11	4.453	21.805	38156	8	21.955	24.117
37861	22	3.025	10.262	37935	9	7.138	14.465	38009	15	9.172	17.712	38083	10	5.413	21.201	38157	10	24.972	24.558
37862	8	3.548	10.383	37936	12	9.206	14.756	38010	8	11.649	17.737	38084	16	8.271	21.895	38158	20	0.864	25.595
37863	12	4.405	10.702	37937	22	9.646	14.651	38011	15	13.734	17.840	38085	20	8.530	21.498	38159	23	11.215	25.322
37864	28	6.395	10.198	37938	10	11.360	14.061	38012	20	16.302	17.602	38086	8	9.896	21.345	38160	18	12.318	25.436
37865	10	6.697	10.568	37939	12	13.122	14.072	38013	10	16.815	17.622	38087	16	10.486	21.438	38161	10	12.363	25.725
37866	18	6.881	10.506	37940	9	14.166	14.726	38014	16	19.104	17.496	38088	24	11.577	21.605	38162	22	12.446	25.924
37867	15	7.868	10.408	37941	11	14.221	14.074	38015*	48	19.634	17.206	38089	20	12.195	21.565	38163	10	14.396	25.692
37868	8	8.748	10.564	37942*	40	16.877	14.369	38016	22	23.442	17.974	38090	32	12.966	21.924	38164	8	14.957	25.316
37869	9	11.107	10.985	37943	8	18.888	14.514	38017	8	23.852	17.465	38091	24	13.020	21.206	38165	8	15.018	25.534
37870	21	12.365	10.004	37944	10	19.180	14.325	38018	38	25.811	17.128	38092	9	16.384	21.180	38166	8	17.954	25.224
37871	8	14.536	10.145	37945	20	19.293	14.096	38019	10	4.304	18.036	38093	10	20.750	21.355	38167	10	18.906	25.742
37872	8	17.492	10.197	37946	10	20.395	14.903	38020	10	4.604	18.204	38094	11	20.900	21.454	38168	10	20.727	25.476
37873	26	20.300	10.362	37947	15	21.953	14.442	38021	18	5.578	18.762	38095	9	21.760	21.847	38169	8	21.865	25.662
37874	11	21.042	10.574	37948	8	23.382	14.863	38022	8	6.074	18.714	38096	10	22.035	21.366	38170	8	22.717	25.856
37875	21	21.416	10.676	37949	18	25.346	14.300	38023*	46	7.544	18.469	38097	8	23.973	21.368				
37876	10	25.198	10.706	37950	18	0.844	15.300	38024	9	11.802	18.597	38098	8	24.668	21.306				
37877	18	0.225	11.623	37951	24	2.307	15.742	38025*	48	15.940	18.468	38099	27	0.014	22.818				
37878	8	1.402	11.936	37952	10	3.350	15.571	38026	20	16.105	18.107	38100	40	0.145	22.868				
37879	8	1.884	11.122	37953	8	4.564	15.015	38027	11	16.463	18.402	38101	10	0.824	22.615				
37880	13	3.314	11.868	37954	26	4.785	15.284	38028	11	16.522	18.832	38102*	40	2.474	22.265				
37881	8	4.206	11.865	37955	16	5.866	15.690	38029	13	19.266	18.473	38103	8	3.368	22.952				
37882	8	4.772	11.196	37956	8	7.200	15.784	38030	18	22.228	18.876	38104	8	4.284	22.804				
37883	8	5.972	11.987	37957	10	8.054	15.926	38031	14	23.246	18.910	38105	8	8.756	22.645				
37884	20	7.124	11.408	37958	24	9.532	15.260	38032	9	24.531	18.647	38106	8	9.503	22.798				
37885	20	8.476	11.437	37959	12	10.104	15.116	38033	12	0.900	19.845	38107	8	10.185	22.462				
37886	10	10.108	11.937	37960*	40	11.158	15.485	38034	8	1.158	19.580	38108	12	10.356	22.889				
37887	8	11.052	11.564	37961	18	12.310	15.574	38035	8	1.279	19.821	38109	8	11.192	22.252				
37888	34	12.584	11.754	37962	20	14.264	15.388	38036	20	1.346	19.198	38110	8	12.001	22.210				
37889	8	12.622	11.234	37963	12	17.426	15.714	38037	10	1.531	19.074	38111	24	12.100	22.364				
37890	10	13.090	11.100	37964	8	18.165	15.844	38038*	51	2.244	19.426	38112	8	12.556	22.962				
37891	8	17.380	11.345	37965	8	18.194	15.550	38039*	46	2.262	19.528	38113	40	13.378	22.402				
37892	8	18.505	11.115	37966	8	18.612	15.138	38040	8	3.920	19.285	38114	21	14.414	22.964				
37893	8	22.482	11.322	37967	12	19.827	15.952	38041	8	5.316	19.157	38115	8	15.746	22.074				
37894	12	23.654	11.123	37968	24	20.056	15.754	38042	24	9.646	19.018	38116	8	17.024	22.286				
37895	8	25.318	11.637	37969	21	20.316	15.600	38043	10	10.086	19.296	38117	10	19.284	22.273				
37896	20	1.755	12.287	37970	35	21.415	15.062	38044	25	11.008	19.855	38118	8	20.984	22.974				
37897	17	3.405	12.973	37971	8	21.536	15.610	38045	8	11.466	19.844	38119	8	21.512	22.465				
37898*	49	3.756	12.986	37972	9	21.607	15.322	38046	8	11.820	19.654	38120	8	22.855	22.161				
37899*	49	4.764	12.222	37973	18	21.768	15.454	38047	8	12.410	19.974	38121	10	23.914	22.422				
37900	8	4.958	12.234	37974	20	23.354	15.078	38048	10	12.912	19.306	38122	38	25.182	22.334				
37901	8	10.649	12.657	37975	23	23.474	15.003	38049	8	13.630	19.532	38123	8	25.909	22.916				
37902	8	13.163	12.252	37976	8	23.512	15.693	38050	12	16.705	19.455	38124	8	0.283	23.206				
37903	8	14.251	12.888	37977	8	24.906	15.262	38051	20	16.875	19.794	38125	10	1.298	23.615				
37904	8	14.465	12.758	37978	20	25.049	15.616	38052	23	18.295	19.422	38126	8	4.412	23.271				
37905	8	14.856	12.574	37979	20	1.003	16.917	38053*	40	20.661	19.004	38127	12	5.593	23.924				
37906	15	16.682	12.494	37980*	36	1.156	16.526	38054	10	21.144	19.054	38128	8	9.000	23.110				
37907	9	17.720	12.570	37981	13	1.194	16.174	38055	27	21.337	19.268	38129	9	9.053	23.816				
37908	9	19.948	12.926	37982	8	4.899	16.760	38056	10	23.505	19.512	38130	10	11.202	23.712				
37909	12	23.843	12.174	37983	8	5.221	16.957	38057	10	1.850	20.004	38131	9	14.292	23.357				
37910	10	0.300	13.808	37984*	45	5.496	16.678	38058	25	3.559	20.648	38132	10	14.989	23.735				
37911	18	0.572	13.616	37985	29	5.885	16.216	38059	8	4.536	20.277	38133	8	17.187	23.986				
37912	11	1.028	13.822	37986	8	6.852	16.954	38060	10	10.602	20.368	38134	10	18.695	23.636				
37913	33	2.200	13.660	37987	23	7.956	16.957	38061	10	12.515	20.855	38135	16	18.960	23.930				
37914	18	4.316	13.934	37988	13	9.217	16.547	38062	11	12.586	20.176	38136	10	20.446	23.712				
37915	8	6.616	13.882	37989	33	9.229	16.983	38063	20	12.757	20.454	38137	12	20.454	23.626				
37916	13	9.165	13.385	37990	8	10.825	16.094	38064	8	12.790	20.963	38138	11	22.629	23.024				
37917	23	10.944	13.466	37991	8	11.360	16.490	38065	8	15.606	20.565	38139	8	24.082	23.697				
37918	8	12.066	13.398	37992	8														



38225	33	23.276	2.685	38299	42	25.612	9.092	38373*	40	15.665	15.334	38447	17	4.712	21.008
38226	8	3.536	3.498	38300	8	2.013	10.724	38374	37	19.724	15.698	38448	17	5.598	21.854
38227	8	5.146	3.711	38301	31	4.864	10.644	38375	8	21.207	15.035	38449	42	5.605	21.304
38228	18	9.588	3.925	38302	9	6.380	10.216	38376	8	21.464	15.462	38450*	150	7.056	21.362
38229	20	15.394	3.872	38303	21	6.635	10.612	38377	8	22.732	15.601	38451	10	7.504	21.018
38230	8	18.726	3.660	38304	10	9.548	10.144	38378	36	24.526	15.526	38452	19	9.882	21.084
38231	8	21.224	3.823	38305	29	9.842	10.234	38379	29	2.664	16.034	38453	8	10.375	21.734
38232	8	22.377	3.613	38306	21	11.534	10.085	38380	33	3.500	16.714	38454	8	11.044	21.600
38233	23	24.644	3.610	38307	12	11.796	10.838	38381	31	4.322	16.514	38455	8	11.246	21.862
38234	9	0.125	4.615	38308	19	13.514	10.218	38382	8	8.353	16.076	38456	11	13.105	21.604
38235	35	2.082	4.494	38309	8	15.284	10.296	38383*	52	12.558	16.116	38457	8	14.178	21.436
38236	8	4.036	4.280	38310	8	16.886	10.402	38384	8	13.195	16.607	38458	39	18.424	21.128
38237	8	5.262	4.253	38311	12	17.968	10.108	38385	40	14.819	16.799	38459	41	2.875	22.746
38238	14	6.824	4.592	38312	35	20.672	10.685	38386	23	18.336	16.405	38460	16	5.134	22.775
38239	17	10.774	4.343	38313	18	1.222	11.554	38387	18	19.667	16.814	38461	16	10.244	22.838
38240	39	11.755	4.262	38314	8	2.762	11.122	38388	9	19.956	16.386	38462	10	11.045	22.928
38241	34	12.307	4.376	38315	30	4.790	11.524	38389*	42	22.674	16.600	38463	24	11.125	22.094
38242	8	14.056	4.525	38316	17	5.556	11.246	38390	8	24.540	16.483	38464	19	12.022	22.924
38243	41	14.226	4.432	38317	12	8.942	11.256	38391	8	0.465	17.246	38465	8	13.544	22.076
38244	9	15.344	4.516	38318	8	8.966	11.315	38392	8	1.196	17.268	38466	8	16.084	22.074
38245	39	20.594	4.096	38319	9	10.352	11.990	38393	44	3.442	17.536	38467	10	17.853	22.222
38246	10	25.324	4.004	38320	8	11.055	11.022	38394	21	3.848	17.664	38468	28	23.416	22.386
38247	36	4.574	5.176	38321	9	18.782	11.296	38395	29	4.806	17.766	38469	8	25.028	22.666
38248	13	4.964	5.863	38322	8	23.630	11.444	38396	31	5.186	17.976	38470	8	25.527	22.366
38249	11	5.093	5.513	38323	8	23.782	11.682	38397	8	7.642	17.644	38471	10	0.334	23.468
38250	11	7.896	5.305	38324	8	23.988	11.419	38398	51	10.526	17.648	38472*	47	4.568	23.028
38251	11	9.022	5.115	38325	27	1.417	12.604	38399	8	11.536	17.872	38473*	50	8.897	23.964
38252	8	9.106	5.058	38326*	56	3.666	12.754	38400	11	12.234	17.684	38474	20	12.416	23.201
38253	36	12.736	5.388	38327	9	4.325	12.714	38401	14	12.445	17.866	38475	9	15.081	23.426
38254	8	13.110	5.066	38328	8	7.211	12.846	38402	8	13.200	17.737	38476	20	15.238	23.036
38255	12	15.296	5.136	38329	9	7.372	12.256	38403	11	13.789	17.068	38477	17	15.374	23.834
38256	16	17.232	5.986	38330	8	7.862	12.932	38404	8	15.035	17.206	38478	8	16.784	23.988
38257	14	17.364	5.726	38331	34	19.634	12.444	38405	17	15.714	17.294	38479	8	17.276	23.462
38258	16	18.476	5.675	38332	19	20.746	12.786	38406	15	16.118	17.513	38480	20	17.804	23.236
38259	44	19.316	5.323	38333*	66	22.362	12.937	38407	31	20.848	17.325	38481	30	21.266	23.694
38260*	44	19.324	5.195	38334	29	23.543	12.311	38408	39	1.084	18.406	38482	10	22.123	23.545
38261	8	22.030	5.196	38335	10	1.754	13.764	38409	36	3.700	18.695	38483	42	23.737	23.684
38262*	46	22.784	5.955	38336	9	3.938	13.164	38410	8	4.638	18.126	38484	30	3.316	24.186
38263	8	24.840	5.256	38337	28	9.642	13.224	38411	24	9.186	18.616	38485	8	3.586	24.824
38264	35	1.514	6.836	38338	11	11.286	13.428	38412	8	9.498	18.206	38486*	76	5.320	24.054
38265	24	2.294	6.945	38339	10	13.693	13.204	38413	8	10.934	18.072	38487	39	5.578	24.800
38266	10	8.464	6.922	38340	36	17.590	13.258	38414	8	11.674	18.174	38488	37	5.865	24.924
38267	31	11.558	6.436	38341	10	17.964	13.786	38415	11	12.896	18.081	38489	8	6.145	24.554
38268	8	14.418	6.532	38342	35	19.770	13.472	38416	9	13.278	18.324	38490	8	8.384	24.292
38269	9	15.577	6.216	38343	9	20.086	13.184	38417	16	13.448	18.676	38491	8	8.876	24.834
38270	8	17.124	6.755	38344*	72	21.156	13.498	38418	9	15.174	18.534	38492	8	8.978	24.158
38271	14	18.456	6.925	38345	8	23.424	13.838	38419	18	17.400	18.316	38493	8	9.184	25.652
38272	8	20.384	6.468	38346	8	1.937	14.025	38420	35	18.524	18.334	38494	14	9.795	24.396
38273	8	22.082	6.691	38347	20	2.950	14.715	38421	30	21.662	18.740	38495*	52	12.496	24.752
38274	9	0.027	7.915	38348	8	8.095	14.895	38422*	46	24.026	18.484	38496	20	12.792	24.699
38275	8	1.210	7.698	38349	17	12.090	14.626	38423	39	25.775	18.796	38497	10	14.656	24.166
38276	18	7.316	7.556	38350	28	12.780	14.724	38424	28	0.898	19.346	38498	9	18.072	24.733
38277	24	7.452	7.852	38351	22	13.220	14.176	38425	8	2.184	19.074	38499	19	19.622	24.234
38278	38	8.914	7.822	38352	21	13.764	14.024	38426*	44	3.676	19.416	38500	14	19.945	24.576
38279	38	12.344	7.914	38353	20	13.964	14.065	38427	36	5.512	19.816	38501	19	6.940	25.502
38280	15	12.900	7.924	38354	18	14.486	14.750	38428	10	6.904	19.735	38502	18	8.328	25.892
38281	8	21.176	7.552	38355	8	22.554	14.250	38429	31	9.734	19.012	38503	80	11.674	25.856
38282	9	21.636	7.858	38356	32	24.766	14.058	38430	13	11.766	19.176	38504	8	15.904	25.476
38283*	44	23.866	7.176	38357	32	25.876	14.026	38431	30	13.660	19.935	38505	8	17.662	25.344
38284	40	24.596	7.525	38358	29	0.964	15.515	38432	43	16.694	19.936	38506*	80	18.252	25.134
38285	9	4.644	8.136	38359	34	1.084	15.436	38433	18	22.100	19.468	38507	8	21.334	25.345
38286	32	5.362	8.414	38360	8	1.438	15.498	38434	20	1.426	20.622				
38287	34	7.254	8.036	38361	8	2.519	15.681	38435	10	4.194	20.956				
38288	13	9.264	8.415	38362	36	5.922	15.296	38436	35	4.248	20.923				
38289	11	9.880	8.366	38363	28	6.567	15.104	38437	23	5.526	20.990				
38290	9	12.575	8.306	38364	10	6.896	15.746	38438	40	7.246	20.305				
38291	10	0.724	9.326	38365	39	7.464	15.528	38439	37	12.336	20.216				
38292	37	6.236	9.086	38366	16	8.301	15.292	38440	39	14.035	20.186				
38293	27	8.835	9.526	38367	16	10.432	15.418	38441	14	14.256	20.684				
38294	8	18.636	9.978	38368	39	12.356	15.344	38442	11	15.684	20.280				
38295	34	19.092	9.296	38369	10	13.635	15.164	38443	15	16.366	20.282				
38296	40	23.692	9.954	38370	9	13.763	15.554	38444	8	16.584	20.558				
38297	35	24.309	9.916	38371*	44	15.056	15.893	38445	9	16.632	20.666				
38298	26	24.511	9.856	38372	35	15.195	15.146	38446	14	17.456	20.674				

R.A. 14<sup>h</sup> 20<sup>m</sup>

Plate 617; 1916 Mar. 4.

Provisional Constants.

A	B	C
-0.02580	+0.00567	+1.712

D	E	F
-0.00574	-0.02605	-1.217

Mag. = 17.2 - 1.09√d

No.	d	x	y
38550	8	1.133	0.408
38551	10	1.626	0.452
38552	8	11.028	0.160
38553	30	13.022	0.326
38554	11	14.918	0.732
38555	8	16.274	0.040
38556	8	16.952	0.960
38557	31	19.600	0.652
38558	10	21.763	0.885
38559	26	21.919	0.222
38560	8	22.201	0.298
38561	9	6.183	1.044
38562	17	6.459	1.297
38563	11	7.428	1.760
38564	14	7.782	1.525
38565	41	10.310	1.318
38566	10	10.902	1.972
38567	13	15.134	1.506
38568	18	15.229	1.123
38569	18	17.828	1.229
38570	44	18.057	1.730
38571	32	0.817	2.578
38572	8	5.147	2.142
38573	9	5.543	2.121
38574	9	6.938	2.329
38575	11	7.544	2.887
38576	8	9.268	2.524
38577	10	14.906	2.673
38578	8	15.028	2.512
38579	12	17.700	2.553
38580	8	18.522	2.547
38581	8	19.492	2.816
38582	12	23.312	2.089
38583	26	25.254	2.012
38584	12	25.489	2.419
38585	21	2.196	3.487
38586	23	2.882	3.874
38587	10	4.844	3.520
38588	8	8.238	3.876
38589	21	10.098	3.159
38590	8	10.384	3.291
38591	8	10.404	3.786
38592	17	10.640	3.447
38593	8	14.324	3.299
38594	8	15.630	3.322
38595	8	16.762	3.488
38596	19	16.912	3.427
38597	44	17.755	3.148
38598	8	17.779	3.400
38599	26	21.504	3.623
38600	11	24.330	3.187
38601	13	25.777	3.971
38602	32	8.226	4.446
38603	15	13.606	4.982
38604	10	13.740	4.314
38605	16	15.296	4.032



38606	18	15.481	4.926	38680	26	1.923	9.800	38754	24	11.093	12.500	38828	18	13.274	16.710	38902	8	17.909	20.346
38607	8	15.766	4.450	38681	16	2.124	9.735	38755	18	12.299	12.784	38829	9	14.208	16.640	38903	40	19.587	20.148
38608	20	18.368	4.850	38682	8	2.202	9.317	38756	15	15.735	12.804	38830	10	15.837	16.392	38904	8	20.092	20.116
38609	8	19.148	4.536	38683	12	5.670	9.830	38757	13	15.739	12.052	38831	10	16.266	16.040	38905	15	20.284	20.408
38610	12	20.305	4.655	38684	10	6.010	9.701	38758	14	15.900	12.553	38832	8	18.664	16.208	38906	10	21.988	20.718
38611	10	23.882	4.701	38685	16	7.409	9.121	38759	14	16.712	12.003	38833	16	18.872	16.028	38907	8	25.494	20.134
38612	45	0.353	5.849	38686	13	8.087	9.274	38760	10	17.790	12.571	38834	11	19.974	16.870	38908	8	2.847	21.816
38613	9	2.407	5.132	38687	12	8.261	9.535	38761	18	19.613	12.264	38835	18	19.979	16.976	38909	8	3.341	21.454
38614	27	5.394	5.270	38688	8	8.295	9.622	38762	14	21.563	12.556	38836	19	21.066	16.488	38910	10	3.602	21.490
38615	12	5.461	5.818	38689	9	8.544	9.034	38763	14	0.486	13.361	38837	9	23.616	16.888	38911	8	4.882	21.204
38616	8	5.662	5.399	38690	8	9.790	9.436	38764	8	1.074	13.723	38838	9	24.739	16.335	38912	25	7.224	21.302
38617	17	5.938	5.977	38691	25	10.016	9.912	38765	23	2.419	13.932	38839	9	0.358	17.510	38913	9	7.797	21.032
38618	15	6.778	5.630	38692	8	11.716	9.164	38766	21	3.530	13.890	38840	10	1.470	17.749	38914	9	9.642	21.872
38619	12	11.694	5.954	38693	16	12.946	9.306	38767	13	3.844	13.692	38841	8	5.406	17.400	38915	8	9.862	21.976
38620	9	14.461	5.645	38694	9	14.627	9.363	38768	10	3.884	13.346	38842	21	5.468	17.946	38916	8	10.492	21.312
38621	9	17.035	5.984	38695	13	15.851	9.686	38769	16	3.910	13.762	38843	10	13.048	17.712	38917	8	14.194	21.163
38622	9	18.298	5.761	38696	12	24.606	9.870	38770	9	4.076	13.280	38844	19	13.080	17.534	38918	25	15.690	21.280
38623	13	22.114	5.306	38697	43	5.629	10.280	38771	9	5.834	13.220	38845	15	15.366	17.321	38919	12	15.767	21.161
38624	10	2.118	6.894	38698	40	5.791	10.704	38772	9	9.650	13.168	38846	8	18.440	17.411	38920	17	18.980	21.857
38625	8	7.275	6.522	38699	11	6.516	10.588	38773	8	10.046	13.377	38847	29	21.166	17.762	38921	9	19.031	21.708
38626	16	8.163	6.556	38700	18	6.542	10.549	38774	8	11.504	13.524	38848	13	24.541	17.144	38922	14	19.516	21.642
38627	14	9.082	6.484	38701	34	6.943	10.398	38775	12	13.380	13.440	38849*	52	1.719	18.363	38923	8	20.592	21.933
38628	9	9.694	6.569	38702	18	7.136	10.718	38776	10	13.512	13.208	38850	32	3.478	18.658	38924	26	20.742	21.937
38629	8	9.882	6.540	38703	10	7.925	10.100	38777	12	13.955	13.558	38851	28	5.861	18.382	38925	8	22.271	21.898
38630	25	11.060	6.330	38704	25	9.620	10.127	38778	14	15.634	13.161	38852	11	7.806	18.964	38926*	42	23.950	21.894
38631	25	12.368	6.384	38705	8	11.610	10.876	38779	25	17.068	13.636	38853	10	8.348	18.764	38927	42	24.160	21.006
38632	23	12.765	6.636	38706	14	12.626	10.082	38780	26	17.544	13.328	38854	8	9.786	18.726	38928	10	0.128	22.823
38633	8	12.810	6.084	38707	8	12.676	10.563	38781	8	18.346	13.637	38855	9	10.685	18.754	38929	19	1.156	22.272
38634	11	12.852	6.197	38708	8	13.800	10.936	38782	34	19.265	13.924	38856	12	11.742	18.199	38930	12	2.772	22.534
38635	8	12.954	6.822	38709	9	15.213	10.942	38783*	40	21.872	13.998	38857	8	13.640	18.316	38931	11	3.268	22.232
38636	10	17.462	6.518	38710	16	16.763	10.708	38784*	42	22.086	13.367	38858	12	14.414	18.852	38932	9	3.694	22.788
38637*	56	21.789	6.790	38711	8	17.524	10.024	38785	42	24.828	13.578	38859	8	15.008	18.792	38933	10	3.866	22.466
38638	11	23.420	6.322	38712*	47	20.415	10.615	38786	9	0.212	14.146	38860	12	15.176	18.651	38934	8	8.913	22.645
38639	13	25.341	6.414	38713	10	20.963	10.250	38787	32	3.806	14.210	38861	18	15.568	18.154	38935	13	10.104	22.522
38640	12	0.590	7.168	38714	10	21.846	10.112	38788	34	4.637	14.291	38862	19	15.600	18.120	38936	8	10.464	22.494
38641*	45	1.449	7.060	38715	21	22.632	10.866	38789	9	5.908	14.963	38863	33	17.384	18.691	38937	8	10.859	22.644
38642	40	2.181	7.400	38716	10	23.352	10.147	38790	29	8.386	14.418	38864	31	19.778	18.187	38938	11	11.205	22.612
38643	8	4.645	7.252	38717	11	25.512	10.856	38791	21	8.458	14.860	38865	8	20.530	18.328	38939	8	11.989	22.936
38644	8	4.846	7.883	38718	8	1.412	11.562	38792	40	9.964	14.990	38866	9	21.651	18.548	38940	8	13.084	22.912
38645	11	8.873	7.343	38719	10	1.616	11.302	38793	11	11.849	14.062	38867	8	21.823	18.082	38941	13	13.285	22.577
38646	8	9.540	7.386	38720	8	2.797	11.568	38794	8	13.574	14.800	38868	8	23.856	18.242	38942	13	14.023	22.624
38647	15	13.244	7.632	38721	27	4.443	11.917	38795	8	14.353	14.382	38869*	43	24.738	18.992	38943	10	14.162	22.158
38648	8	13.568	7.191	38722	18	4.442	11.050	38796	11	15.524	14.936	38870	8	2.066	19.900	38944	10	15.466	22.518
38649	15	14.125	7.025	38723	18	6.174	11.723	38797*	49	16.958	14.818	38871	8	2.626	19.866	38945	10	16.156	22.658
38650	10	16.936	7.836	38724	9	6.198	11.958	38798	12	17.750	14.710	38872*	50	5.428	19.572	38946	8	17.300	22.862
38651	8	17.063	7.468	38725	23	6.278	11.488	38799	12	18.108	14.970	38873*	55	6.187	19.508	38947	9	20.243	22.858
38652	10	17.196	7.200	38726	15	7.066	11.431	38800	8	19.137	14.312	38874	8	8.012	19.823	38948	12	21.622	22.565
38653	8	17.908	7.805	38727	16	7.528	11.458	38801	8	23.108	14.063	38875	20	8.890	19.894	38949	8	22.625	22.356
38654	22	19.512	7.700	38728	12	11.198	11.642	38802	17	23.784	14.834	38876	18	9.934	19.220	38950	10	23.650	22.910
38655	8	22.750	7.146	38729	9	11.264	11.729	38803	10	0.402	15.495	38877	9	10.969	19.821	38951	21	24.631	22.098
38656	33	22.776	7.627	38730	25	11.891	11.580	38804	24	2.195	15.402	38878	11	12.672	19.150	38952	26	25.558	22.968
38657	10	24.714	7.842	38731	12	11.946	11.296	38805	8	4.402	15.449	38879	10	12.962	19.949	38953	42	1.486	23.564
38658	33	3.212	8.956	38732	9	13.050	11.786	38806	18	6.166	15.195	38880	10	14.365	19.582	38954	14	2.660	23.946
38659	19	5.562	8.838	38733	11	14.459	11.793	38807	12	6.612	15.213	38881	20	15.222	19.562	38955	19	8.406	23.800
38660	32	5.772	8.792	38734	19	15.350	11.030	38808	24	7.220	15.712	38882	14	15.948	19.611	38956	13	10.537	23.840
38661	9	5.886	8.580	38735	8	16.009	11.595	38809	18	8.320	15.812	38883	8	17.822	19.748	38957	8	11.487	23.288
38662	9	6.157	8.369	38736	10	18.310	11.520	38810	13	18.148	15.048	38884	13	18.740	19.130	38958	9	12.722	23.618
38663	8	6.568	8.292	38737	24	18.966	11.657	38811	18	18.354	15.330	38885	8	20.668	19.705	38959	11	14.086	23.212
38664	14	7.553	8.900	38738	19	19.070	11.124	38812	8	19.265	15.237	38886	8	21.516	19.606	38960	10	14.427	23.461
38665	23	9.362	8.128	38739	8	19.143	11.662	38813	8	19.492	15.675	38887	14	24.188	19.336	38961	35	14.674	23.573
38666	33	11.294	8.331	38740	8	19.451	11.590	38814	17	20.403	15.202	38888	31	25.200	19.026	38962	13	15.912	23.842
38667	19	12.419	8.627	38741	8	20.626	11.044	38815	8	21.237	15.283	38889	10	4.199	20.509	38963	24	16.079	23.538
38668	34	15.796	8.748	38742	13	24.394	11.030	38816	20	21.316	15.004	38890	12						



38976	28	11.588	24.479	39066	8	21.328	1.709	39140	22	12.135	7.756	39214	10	6.774	14.250	39288	26	24.182	19.003
38977	31	13.677	24.766	39067*	62	24.159	1.996	39141	10	12.788	7.328	39215	14	8.205	14.875	39289	11	25.224	19.630
38978	8	14.030	24.530	39068	9	25.244	1.158	39142	18	13.245	7.914	39216	12	8.934	14.108	39290	16	25.588	19.685
38979	8	14.382	24.760	39069	8	0.816	2.280	39143	12	14.018	7.592	39217	19	9.485	14.496	39291	38	8.944	20.106
38980	8	14.592	24.688	39070	36	2.758	2.181	39144	20	16.285	7.065	39218	8	10.526	14.846	39292	8	13.416	20.564
38981	8	14.894	24.104	39071	13	5.758	2.375	39145	30	19.018	7.545	39219	8	11.384	14.492	39293	8	14.594	20.565
38982	22	15.834	24.390	39072	9	6.995	2.195	39146*	58	1.056	8.744	39220	34	11.709	14.384	39294	11	16.464	20.728
38983	32	17.204	24.848	39073	42	7.778	2.075	39147	9	1.406	8.900	39221	14	12.684	14.045	39295	10	16.506	20.784
38984	32	18.818	24.649	39074	8	9.616	2.931	39148	36	2.165	8.782	39222	8	14.703	14.728	39296	18	18.245	20.132
38985	8	22.466	24.931	39075	19	13.614	2.937	39149	28	4.738	8.296	39223	9	19.734	14.737	39297	8	18.915	20.818
38986	38	22.702	24.166	39076	20	13.685	2.826	39150	34	5.786	8.388	39224	34	20.750	14.258	39298	40	19.010	20.588
38987	11	24.292	24.728	39077	8	14.554	2.456	39151	13	6.876	8.504	39225	12	22.360	14.824	39299	17	20.284	20.937
38988	8	2.704	25.917	39078	28	17.164	2.844	39152	32	8.110	8.187	39226	12	1.098	15.205	39300	20	24.641	20.025
38989	33	4.564	25.067	39079	12	22.806	2.789	39153	15	14.116	8.812	39227	12	1.420	15.016	39301	16	25.396	20.206
38990	34	4.916	25.978	39080	20	25.624	2.467	39154	8	15.824	8.754	39228	8	2.402	15.435	39302	40	1.855	21.186
38991	8	5.004	25.146	39081	8	1.846	3.364	39155	38	18.528	8.455	39229	19	5.342	15.557	39303	8	4.245	21.124
38992	11	5.472	25.586	39082	26	6.716	3.112	39156	12	20.662	8.366	39230	8	7.250	15.718	39304	10	6.800	21.412
38993	15	7.960	25.728	39083	10	13.680	3.277	39157	34	23.852	8.292	39231	10	9.734	15.145	39305	20	6.802	21.316
38994	25	8.851	25.416	39084	8	17.414	3.500	39158	9	4.218	9.755	39232	8	11.626	15.256	39306	11	8.354	21.255
38995	42	10.400	25.602	39085	12	18.432	3.064	39159	8	5.470	9.522	39233	13	12.675	15.584	39307	10	10.114	21.921
38996	9	10.672	25.448	39086	12	19.874	3.699	39160	18	11.905	9.086	39234*	40	18.936	15.696	39308	8	12.627	21.096
38997	8	10.941	25.232	39087	12	25.656	3.199	39161	22	12.200	9.024	39235	11	19.634	15.787	39309	16	14.616	21.628
38998	8	11.754	25.508	39088	12	1.408	4.882	39162	8	14.217	9.865	39236	12	23.472	15.678	39310	8	14.704	21.294
38999	14	11.964	25.293	39089	11	3.304	4.134	39163	15	14.656	9.753	39237	8	2.388	16.515	39311	8	14.766	21.927
39000	9	12.924	25.296	39090	21	3.652	4.687	39164	21	14.908	9.506	39238	12	5.224	16.275	39312	8	15.205	21.850
39001	9	13.796	25.190	39091	22	5.554	4.378	39165	12	16.252	9.102	39239	11	6.454	16.598	39313	8	15.734	21.086
39002	28	15.290	25.676	39092	8	7.914	4.600	39166	11	16.804	9.662	39240	16	7.742	16.595	39314	22	18.086	21.306
39003	25	16.730	25.333	39093	32	12.816	4.296	39167	38	17.244	9.934	39241	8	12.168	16.265	39315	8	20.199	21.325
39004	11	16.797	25.130	39094	8	13.612	4.624	39168	10	19.210	9.215	39242	8	12.182	16.313	39316	26	22.346	21.344
39005	9	20.294	25.564	39095	34	17.245	4.824	39169	38	20.994	9.516	39243	8	16.254	16.668	39317	14	22.750	21.134
39006	8	20.602	25.612	39096	8	18.876	4.456	39170	18	23.184	9.056	39244	22	16.312	16.574	39318*	48	1.650	22.076
39007	30	23.655	25.866	39097	8	19.724	4.758	39171	10	25.685	9.853	39245	11	16.588	16.528	39319	32	2.339	22.274
39008	19	24.985	25.394	39098	14	20.890	4.511	39172	8	0.944	10.336	39246	16	17.526	16.272	39320	8	7.884	22.148
				39099	42	21.566	4.768	39173	12	2.187	10.044	39247	14	18.306	16.928	39321	24	9.085	22.224
				39100	23	21.612	4.233	39174	12	8.576	10.704	39248	8	19.526	16.146	39322	8	13.714	22.646
				39101	8	21.824	4.876	39175	8	12.108	10.836	39249	16	21.729	16.054	39323	8	14.100	22.666
				39102	8	22.746	4.408	39176	8	12.943	10.136	39250*	40	24.686	16.926	39324	16	14.538	22.428
				39103	15	23.644	4.356	39177	38	13.316	10.844	39251	22	24.806	16.186	39325	8	17.144	22.882
				39104	16	25.438	4.293	39178	8	16.046	10.344	39252	8	25.043	16.764	39326	16	17.364	22.876
				39105	38	4.138	5.526	39179	12	17.951	10.896	39253	14	2.204	17.318	39327	8	18.185	22.132
				39106*	29	5.504	5.164	39180	8	18.456	10.694	39254	8	6.776	17.211	39328	38	21.393	22.904
				39107	32	7.190	5.094	39181	38	19.085	10.546	39255*	69	9.606	17.686	39329	8	22.337	22.034
				39108*	52	7.280	5.025	39182	38	22.106	10.215	39256	34	11.254	17.594	39330	10	22.536	22.656
				39109	34	8.397	5.120	39183	8	22.156	10.825	39257	36	13.661	17.146	39331*	52	22.880	22.982
				39110	8	9.416	5.065	39184	36	23.796	10.410	39258	8	17.934	17.748	39332	18	25.575	22.588
				39111	10	9.988	5.625	39185	8	23.851	10.666	39259	9	21.800	17.570	39333	8	1.366	23.093
				39112	21	11.251	5.424	39186	24	0.226	11.062	39260	16	25.236	17.938	39334	38	3.278	23.135
				39113	10	11.943	5.020	39187	8	1.992	11.204	39261	8	8.774	18.143	39335	8	7.194	23.235
				39114*	96	14.346	5.262	39188	8	2.214	11.632	39262	20	8.965	18.993	39336	16	9.068	23.588
				39115	36	15.642	5.130	39189	14	3.106	11.024	39263	8	11.737	18.048	39337	12	10.286	23.202
				39116	12	15.801	5.208	39190	12	6.174	11.448	39264	13	12.184	18.928	39338	24	10.548	23.884
				39117	16	19.626	5.576	39191	19	9.052	11.615	39265	19	12.388	18.592	39339	19	13.856	23.854
				39118	8	0.965	6.512	39192	14	9.055	11.752	39266	12	15.604	18.218	39340	22	20.901	23.185
				39119	14	2.891	6.584	39193	14	12.906	11.523	39267	15	18.946	18.508	39341	28	21.604	23.783
				39120	17	3.864	6.596	39194	10	14.243	11.940	39268	16	19.506	18.404	39342	16	22.294	23.860
				39121	8	6.100	6.303	39195	8	19.274	11.264	39269	36	20.714	18.584	39343	8	22.736	23.984
				39122	34	6.348	6.070	39196	8	22.462	11.108	39270	22	24.224	18.096	39344*	42	23.084	23.901
				39123*	46	6.461	6.528	39197	24	6.475	12.706	39271	8	24.308	18.048	39345	36	0.432	24.362
				39124	8	8.844	6.224	39198	8	8.534	12.980	39272	8	24.636	18.836	39346	8	2.034	24.908
				39125	16	8.866	6.514	39199	28	11.268	12.071	39273	36	25.628	18.664	39347	28	9.388	24.966
				39126	17	9.244	6.306	39200	14	14.225	12.598	39274	10	1.866	19.515	39348	14	9.446	24.145
				39127	12	13.765	6.256	39201	8	17.892	12.967	39275*	45	2.413	19.166	39349	40	10.598	24.948
				39128	15	14.410	6.426	39202	22	25.326	12.905	39276	32	2.875	19.194	39350	18	12.484	24.982
				39129	10	16.014	6.306	39203	49	2.446	13.752	39277	24	8.744	19.918	39351	8	17.214	24.383
				39130	10	16.894	6.995	39204	10	6.594	13.756	39278	8	9.546	19.115	39352	8	18.044	24.374
				39131	14	18.058	6.012	39205	8	12.343	13.954	39279	8	10.499	19.954	39353	38	19.145	24.874
				39132	26	19.126	6.825	39206	8	13.725	1								







39752	8	10°972	23°095	39852	24	9°044	0°176	39926*	43	21°972	5°583	40000	9	6°914	10°461	40074*	55	4°812	14°048
39753	21	11°956	23°251	39853	8	9°742	0°801	39927	8	2°344	6°190	40001	20	7°581	10°752	40075	8	5°276	14°242
39754	14	14°292	23°610	39854	40	9°876	0°314	39928	16	2°356	6°754	40002	22	8°430	10°416	40076	23	5°612	14°844
39755	9	15°986	23°190	39855	10	11°618	0°899	39929*	54	2°837	6°235	40003	8	9°426	10°860	40077	11	9°360	14°176
39756*	58	16°035	23°000	39856*	60	14°456	0°874	39930	19	9°858	6°008	40004	21	9°675	10°122	40078	8	9°536	14°138
39757	10	16°686	23°330	39857	16	16°000	0°948	39931	40	11°442	6°890	40005	8	10°148	10°884	40079	8	10°436	14°902
39758	8	17°400	23°007	39858	12	17°065	0°757	39932	8	12°742	6°874	40006	8	11°868	10°164	40080	26	10°888	14°268
39759	28	19°242	23°589	39859	14	17°420	0°028	39933	8	14°216	6°513	40007	40	15°740	10°396	40081	20	11°305	14°759
39760	12	19°814	23°689	39860	16	20°470	0°056	39934	15	15°092	6°526	40008	9	16°986	10°407	40082	25	12°383	14°430
39761	46	20°956	23°444	39861*	49	21°516	0°807	39935	12	15°202	6°404	40009	8	20°465	10°564	40083	24	12°903	14°282
39762	30	21°144	23°228	39862	8	22°979	0°359	39936*	42	16°482	6°286	40010	31	20°950	10°102	40084	11	14°584	14°656
39763*	58	24°724	23°000	39863	19	1°390	1°185	39937	21	19°460	6°554	40011	8	24°114	10°508	40085	23	17°310	14°808
39764	8	2°689	24°581	39864	26	1°560	1°344	39938	12	23°274	6°426	40012	8	1°636	11°644	40086	8	22°510	14°476
39765	8	5°674	24°154	39865	40	2°481	1°168	39939	15	23°732	6°750	40013	8	2°902	11°760	40087	38	22°512	14°663
39766	11	6°571	24°084	39866	14	4°931	1°210	39940	29	24°947	6°654	40014	14	3°238	11°097	40088	—	23°134	14°326
39767	23	7°696	24°490	39867	8	5°126	1°127	39941	25	0°335	7°227	40015	25	5°274	11°925	40089	22	25°090	14°535
39768	40	8°018	24°315	39868*	55	5°780	1°650	39942	14	1°167	7°716	40016	18	6°875	11°490	40090	15	25°369	14°196
39769	8	8°363	24°591	39869	8	5°924	1°085	39943	15	5°402	7°417	40017	10	9°176	11°036	40091*	60	2°554	15°975
39770	10	8°912	24°358	39870	9	12°055	1°209	39944	8	6°488	7°764	40018	18	9°494	11°348	40092	11	6°614	15°182
39771	9	10°706	24°909	39871	12	12°624	1°396	39945	26	6°580	7°509	40019*	80	9°929	11°777	40093	11	7°086	15°228
39772	12	12°656	24°093	39872	28	13°440	1°588	39946	8	7°039	7°293	40020	8	10°654	11°684	40094	13	7°115	15°359
39773	8	13°315	24°237	39873	8	14°226	1°009	39947	8	8°968	7°501	40021	20	12°290	11°248	40095	12	7°891	15°500
39774	10	13°801	24°531	39874	18	15°394	1°920	39948*	40	11°224	7°894	40022	12	12°374	11°119	40096	12	8°555	15°788
39775	8	15°147	24°718	39875	9	16°984	1°229	39949*	45	11°228	7°887	40023	8	13°649	11°210	40097	16	10°073	15°358
39776	9	19°457	24°020	39876	8	19°104	1°224	39950	10	11°526	7°750	40024	9	15°086	11°710	40098	8	10°124	15°353
39777	16	21°446	24°624	39877	8	19°138	1°715	39951	9	11°766	7°820	40025	8	15°199	11°462	40099	29	13°812	15°966
39778	27	22°512	24°121	39878	9	20°264	1°550	39952	8	13°446	7°658	40026	16	15°366	11°366	40100	13	13°984	15°705
39779	22	23°115	24°900	39879	22	21°417	1°592	39953	12	13°784	7°516	40027	18	15°724	11°954	40101	8	14°151	15°550
39780	8	24°144	24°815	39880	13	21°495	1°428	39954	20	15°180	7°064	40028	8	16°850	11°982	40102	30	15°262	15°184
39781	23	24°580	24°254	39881	13	24°548	1°934	39955*	48	17°708	7°652	40029*	38	19°124	11°289	40103	38	15°623	15°782
39782	9	24°610	24°995	39882	24	3°476	2°368	39956*	53	17°710	7°749	40030*	50	19°136	11°541	40104	10	18°160	15°415
39783	8	24°864	24°526	39883	20	3°688	2°801	39957*	46	18°195	7°646	40031	13	19°476	11°260	40105	34	20°106	15°536
39784	33	25°390	24°630	39884	18	7°404	2°756	39958	10	18°261	7°796	40032	8	21°566	11°716	40106	26	21°724	15°103
39785	8	5°532	25°932	39885	8	10°354	2°060	39959	12	19°799	7°902	40033	16	23°768	11°874	40107	11	24°182	15°298
39786	24	6°800	25°960	39886*	44	12°107	2°626	39960	8	22°055	7°868	40034	13	25°061	11°340	40108	17	0°616	16°911
39787	23	7°636	25°963	39887	10	13°765	2°734	39961	29	22°612	7°455	40035	11	1°460	12°550	40109	8	5°188	16°176
39788	11	7°964	25°416	39888	8	15°312	2°413	39962	22	22°615	7°790	40036	8	2°031	12°938	40110	16	5°810	16°676
39789	8	8°300	25°134	39889	8	18°180	2°731	39963*	35	24°492	7°029	40037	14	2°612	12°889	40111	8	6°050	16°838
39790	10	9°872	25°893	39890*	58	24°428	2°161	39964	8	1°779	8°584	40038	8	3°136	12°178	40112	8	7°090	16°331
39791	30	13°225	25°586	39891	26	25°999	2°866	39965	8	2°550	8°424	40039	34	3°232	12°984	40113	23	7°938	16°300
39792	34	13°856	25°287	39892	13	14°657	3°740	39966	28	2°764	8°097	40040	8	3°774	12°128	40114	8	8°573	16°909
39793	8	14°305	25°185	39893	8	16°304	3°646	39967	12	5°479	8°014	40041	9	5°190	12°515	40115	20	11°100	16°838
39794	22	15°358	25°380	39894	17	17°388	3°609	39968	14	6°266	8°108	40042	9	5°822	12°732	40116	8	13°823	16°609
39795	11	16°246	25°768	39895	10	20°192	3°590	39969	8	6°718	8°208	40043	15	7°394	12°947	40117	20	13°981	16°994
39796	8	17°517	25°468	39896	8	20°656	3°861	39970*	44	10°128	8°084	40044	14	10°124	12°471	40118	26	13°982	16°298
39797	8	18°015	25°164	39897	13	22°014	3°333	39971	8	12°884	8°006	40045	21	12°050	12°010	40119	26	17°771	16°266
39798	14	18°843	25°474	39898	8	23°777	3°490	39972	14	14°210	8°520	40046	10	13°015	12°790	40120*	40	18°081	16°196
39799	10	18°946	25°274	39899	8	0°884	4°746	39973	8	16°160	8°382	40047	9	14°484	12°596	40121	11	18°152	16°327
39800	32	20°427	25°630	39900*	60	1°748	4°818	39974	37	16°956	8°102	40048	12	16°974	12°510	40122	33	19°741	16°354
39801	8	20°984	25°965	39901	8	4°170	4°072	39975	9	18°415	8°010	40049	8	17°840	12°393	40123	8	21°866	16°656
39802	29	21°577	25°690	39902	9	6°700	4°060	39976	8	21°416	8°843	40050	9	17°992	12°410	40124	19	22°484	16°242
				39903	21	7°099	4°125	39977	23	0°414	9°594	40051	28	18°992	12°262	40125	21	22°926	16°577
				39904	10	10°084	4°318	39978	8	2°160	9°019	40052	22	19°298	12°896	40126	17	24°986	16°092
				39905	29	11°494	4°248	39979	26	3°624	9°494	40053	26	19°520	12°036	40127	20	1°654	17°918
				39906	15	12°546	4°356	39980	13	5°325	9°660	40054	8	22°881	12°278	40128	23	3°614	17°314
				39907	8	13°116	4°258	39981	11	5°402	9°542	40055	33	24°593	12°986	40129	22	6°348	17°218
				39908	10	14°978	4°040	39982	23	6°648	9°136	40056	41	25°246	12°790	40130	18	7°078	17°447
				39909	10	16°950	4°682	39983	10	6°670	9°966	40057	29	2°930	13°344	40131	14	8°686	17°233
				39910	8	17°164	4°880	39984	8	7°646	9°285	40058	10	3°016	13°170	40132	25	9°004	17°610
				39911	10	18°216	4°952	39985	11	8°198	9°400	40059	15	4°476	13°590	40133	8	12°454	17°454
				39912	13	19°193	4°104	39986	20	10°514	9°616	40060	8	7°846	13°040	40134	8	12°392	17°506
				39913	26	21°123	4°614	39987	8	11°729	9°994	40061	8	8°580	13°821	40135	26	12°794	17°958
				39914	8	22°971	4°174	39988	23	11°792	9°905	40062	8	8°718	13°374	40136	31	15°286	17°099
				39915	20	25°715	4°462	39989	22	13°532	9°356	40063	12	10°524	13°924	40137*	80	18°450	17°046
				39916	13	0°296	5°345	39990	8										



40148*	55	18.002	18.084	40222	16	6.068	23.560	40356	20	6.858	3.707	40430	10	7.440	8.076
40149	23	18.035	18.106	40223	19	6.684	23.518	40357	13	6.940	3.478	40431	8	7.784	8.514
40150	26	18.522	18.497	40224	8	6.986	23.564	40358	20	8.860	3.193	40432	36	9.108	8.834
40151	8	22.423	18.656	40225	8	9.214	23.471	40359	21	12.149	3.801	40433	11	12.960	8.378
40152	14	23.726	18.594	40226	15	11.030	23.810	40360	8	12.964	3.636	40434	8	15.079	8.142
40153	9	25.614	18.013	40227	19	12.626	23.070	40361	8	17.050	3.212	40435	20	16.763	8.670
40154*	62	1.017	19.536	40228	8	13.442	23.894	40362	11	22.898	3.185	40436	20	17.892	8.526
40155	14	2.967	19.280	40229*	44	14.726	23.170	40363	10	23.360	3.136	40437	37	19.604	8.265
40156	8	3.604	19.312	40230	10	18.166	23.921	40364	8	24.495	3.216	40438	8	19.880	8.218
40157	20	4.610	19.664	40231*	84	19.172	23.693	40365	9	24.590	3.522	40439	34	22.111	8.958
40158	23	6.184	19.954	40232	31	21.296	23.986	40366	9	0.548	4.050	40440*	40	23.814	8.084
40159	13	11.016	19.594	40233	28	21.353	23.920	40367	8	1.660	4.183	40441	11	24.221	8.640
40160	17	11.196	19.476	40234	40	23.184	23.718	40368	19	3.298	4.298	40442	13	24.690	8.916
40161	23	11.430	19.871	40235	24	23.258	23.190	40369	13	3.956	4.336	40443	9	25.808	8.720
40162	11	17.159	19.018	40236	21	24.265	23.594	40370	9	4.190	4.800	40444	11	4.094	9.171
40163	34	17.364	19.514	40237	8	25.689	23.482	40371	11	4.592	4.600	40445	19	4.100	9.624
40164	21	17.978	19.915	40238	21	0.236	24.646	40372	15	5.070	4.626	40446	13	4.814	9.979
40165	8	18.316	19.348	40239	22	2.304	24.758	40373	9	5.196	4.546	40447	8	7.452	9.240
40166	24	19.849	19.267	40240	8	4.931	24.102	40374*	34	7.906	4.517	40448	12	9.662	9.200
40167	17	20.084	19.314	40241	45	7.446	24.571	40375	36	20.180	4.984	40449	11	10.540	9.186
40168	17	21.581	19.530	40242	13	7.890	24.082	40376	8	21.436	4.774	40450	19	13.386	9.211
40169	17	22.353	19.970	40243	10	9.396	24.707	40377	8	22.496	4.722	40451	17	17.350	9.618
40170	31	24.326	19.025	40244	15	11.658	24.627	40378	8	25.972	4.806	40452	8	17.810	9.667
40171	10	24.592	19.867	40245	12	13.072	24.031	40379	9	3.990	5.705	40453	10	18.644	9.821
40172	16	0.688	20.666	40246	28	14.180	24.214	40380	8	4.090	5.718	40454	12	23.864	9.265
40173	8	3.546	20.260	40247	25	15.574	24.808	40381	10	5.106	5.549	40455	8	24.256	9.344
40174	11	5.088	20.482	40248	9	16.715	24.474	40382*	41	7.182	5.436	40456	12	24.540	9.958
40175	18	6.748	20.258	40249	13	17.691	24.669	40383*	78	9.386	5.353	40457	12	25.168	9.384
40176	8	6.959	20.785	40250	37	17.780	24.387	40384	19	9.520	5.690	40458	9	1.776	10.370
40177	10	7.624	20.618	40251	26	19.004	24.580	40385	9	10.409	5.246	40459	10	5.080	10.566
40178	8	7.714	20.619	40252	8	21.312	24.203	40386	15	10.496	5.808	40460	10	6.214	10.500
40179	8	7.826	20.152	40253	8	22.343	24.734	40387	10	13.340	5.488	40461	10	6.707	10.728
40180*	40	9.850	20.152	40254	12	24.010	24.974	40388	9	14.760	5.968	40462	13	7.582	10.140
40181	9	10.004	20.400	40255	11	24.041	24.823	40389	20	18.106	5.472	40463	12	7.665	10.802
40182	25	10.094	20.567	40256	8	25.376	24.766	40390	35	18.174	5.758	40464	11	8.845	10.736
40183	17	11.221	20.546	40257	22	0.844	25.420	40391	12	18.650	5.460	40465*	54	14.980	10.553
40184	20	13.143	20.636	40258	8	1.872	25.324	40392	10	21.126	5.488	40466	8	18.682	10.234
40185	26	13.592	20.468	40259	12	2.344	25.500	40393	9	0.880	6.298	40467	8	19.429	10.021
40186	15	15.157	20.926	40260	8	2.589	25.027	40394	10	1.174	6.638	40468	17	20.584	10.742
40187	8	0.086	21.645	40261	30	3.116	25.128	40395	12	1.344	6.616	40469	13	20.798	10.488
40188	17	6.706	21.650	40262	36	6.572	25.400	40396*	36	2.102	6.882	40470	19	22.430	10.240
40189	10	7.761	21.756	40263	11	6.638	25.320	40397	26	2.556	6.500	40471	11	23.092	10.898
40190	8	8.670	21.498	40264*	49	6.691	25.168	40398	28	3.856	6.240	40472	13	1.450	11.740
40191	9	9.679	21.343	40265	10	9.860	25.464	40399	10	9.622	6.240	40473	12	2.738	11.188
40192	8	10.510	21.934	40266	39	9.914	25.825	40400	33	11.736	6.004	40474	8	3.576	11.754
40193	8	10.714	21.870	40267	8	10.454	25.340	40401	9	12.307	6.124	40475	10	12.734	11.390
40194	21	12.299	21.414	40268	16	10.920	25.358	40402	19	14.504	6.846	40476	10	12.900	11.398
40195	8	13.218	21.932	40269	10	11.900	25.300	40403	8	16.546	6.061	40477	10	13.215	11.806
40196	21	13.420	21.819	40270	23	14.694	25.971	40404	10	16.865	6.270	40478*	75	14.322	11.946
40197	8	14.236	21.044	40271	18	15.680	25.044	40405	13	18.342	6.582	40479	9	16.145	11.466
40198	17	16.818	21.930	40272	64	18.302	25.560	40406	38	19.664	6.097	40480	8	22.600	11.566
40199	11	17.160	21.642	40273	18	18.443	25.963	40407	8	21.144	6.655	40481	11	23.446	11.600
40200*	56	17.866	21.968	40274	56	18.494	25.566	40408	13	21.307	6.665	40482	8	25.736	11.454
40201	10	19.376	21.800	40275	16	20.294	25.620	40409	8	23.115	6.508	40483	8	0.571	12.156
40202	14	20.136	21.204					40410*	57	23.564	6.367	40484	31	2.289	12.840
40203	21	21.020	21.430					40411	9	24.622	6.395	40485	39	2.938	12.636
40204	12	21.642	21.879					40412	25	0.230	7.332	40486	8	5.581	12.024
40205	10	2.844	22.582					40413	16	0.240	7.670	40487	16	6.206	12.622
40206	36	4.427	22.648					40414	13	4.100	7.614	40488	48	6.544	12.886
40207	8	5.096	22.262					40415	12	7.701	7.561	40489	9	7.492	12.762
40208	9	8.552	22.173					40416	11	8.512	7.433	40490	8	9.170	12.266
40209	14	8.852	22.790					40417	11	9.199	7.065	40491	11	10.865	12.906
40210	20	11.960	22.667					40418	8	14.161	7.658	40492	19	11.012	12.780
40211	25	13.344	22.060					40419	8	15.060	7.961	40493	22	12.925	12.382
40212	25	13.746	22.984					404							



40504	10	3.756	13.885	40578	8	5.047	18.246	40652	10	15.888	22.110	<b>R.A. 15<sup>h</sup> 0<sup>m</sup></b> Plate 657; 1916 Mar. 29. <i>Provisional Constants.</i> A            B            C -0.02550 + 0.00294 + 0.0495 D            E            F -0.00275 -0.02566 -0.2510 Mag. = 17.4 - 1.09√d	40806	11	12.072	3.142
40505	8	6.254	13.750	40579	12	7.225	18.473	40653	10	15.900	22.112		40807	20	12.970	3.994
40506	14	6.554	13.452	40580	14	7.228	18.296	40654	16	17.644	22.360		40808	12	18.661	3.329
40507	33	7.914	13.582	40581	8	8.562	18.184	40655	13	19.069	22.738		40809	9	21.032	3.805
40508	8	8.025	13.122	40582*	46	12.892	18.573	40656	8	19.168	22.722		40810	14	23.865	3.485
40509	39	9.225	13.346	40583	17	13.441	18.305	40657	8	22.702	22.966		40811	31	25.054	3.815
40510	24	9.756	13.538	40584	9	14.118	18.171	40658	9	22.768	22.527		40812	9	3.382	4.920
40511	8	10.300	13.768	40585	9	15.351	18.192	40659	12	25.622	22.042		40813	15	3.773	4.825
40512	12	14.256	13.532	40586	20	15.403	18.486	40660	43	1.030	23.593		40814	8	4.608	4.419
40513	14	17.350	13.494	40587	12	15.558	18.770	40661	29	1.098	23.064		40815	8	4.996	4.792
40514	20	19.691	13.180	40588	10	19.500	18.889	40662	19	2.112	23.452	No.    d        x        y 40750* 53    7.588    0.187 40751    10    8.416    0.970 40752    18    11.232    0.858 40753* 45    15.528    0.158 40754    16    15.525    0.122 40755    25    16.544    0.261 40756    22    17.686    0.264 40757* 46    18.093    0.908 40758    8    19.512    0.272 40759    11    21.696    0.368 40760    11    24.188    0.585 40761    40    25.998    0.696 40762    8    0.296    1.757 40763    15    0.608    1.621 40764    11    0.707    1.554 40765    22    2.412    1.116 40766    20    3.250    1.052 40767    8    4.569    1.956 40768    29    11.084    1.255 40769    19    14.532    1.280 40770    14    14.680    1.446 40771* 110    16.199    1.820 40772    18    17.230    1.420 40773    30    18.580    1.975 40774    9    19.369    1.100 40775    19    19.686    1.084 40776    8    20.502    1.867 40777    10    25.370    1.810 40778    11    2.192    2.961 40779    15    3.928    2.931 40780    11    4.192    2.982 40781    18    6.740    2.951 40782    17    8.106    2.433 40783    26    8.688    2.559 40784    20    10.000    2.197 40785    10    11.456    2.957 40786    13    13.852    2.356 40787    12    15.143    2.499 40788    18    15.464    2.738 40789    13    17.308    2.879 40790    32    22.114    2.758 40791    9    22.915    2.407 40792    11    23.184    2.191 40793    14    24.396    2.533 40794    26    24.646    2.423 40795    15    0.300    3.308 40796    13    0.762    3.260 40797    10    1.996    3.640 40798    8    4.882    3.878 40799    10    6.624    3.492 40800* 60    7.040    3.047 40801    16    7.944    3.809 40802    24    8.504    3.261 40803    26    8.756    3.959 40804    15    11.052    3.801 40805    17    11.850    3.934	40816	15	5.832	4.150
40515	10	21.271	13.050	40589	12	20.608	18.504	40663	10	3.537	23.321		40817	33	9.940	4.808
40516	8	21.317	13.570	40590	10	24.038	18.835	40664	16	5.725	23.982		40818	16	10.218	4.400
40517	19	21.510	13.646	40591	10	24.511	18.736	40665	13	7.702	23.942		40819	25	10.905	4.280
40518	9	23.336	13.250	40592	10	24.578	18.366	40666*	56	8.071	23.684		40820	11	12.190	4.853
40519	34	0.229	14.546	40593	14	0.148	19.856	40667	8	10.223	23.231		40821	30	12.224	4.710
40520	8	0.229	14.360	40594	9	2.388	19.722	40668	31	11.121	23.046		40822	14	13.444	4.807
40521	18	2.810	14.382	40595	8	3.980	19.070	40669	12	11.584	23.303		40823	36	14.300	4.471
40522	11	3.086	14.038	40596	8	4.116	19.836	40670	8	11.597	23.782		40824	13	14.386	4.297
40523	8	9.852	14.615	40597	14	5.598	19.862	40671	19	13.510	23.167	40825 20 15.176 4.387 40826 8 15.854 4.720 40827 8 16.788 4.062 40828 19 22.666 4.318 40829 9 22.988 4.112 40830 8 4.397 5.631 40831 9 4.471 5.220 40832 19 6.847 5.018 40833 11 13.737 5.526 40834 12 14.694 5.287 40835 12 16.810 5.394 40836 38 18.428 5.778 40837 20 18.514 5.987 40838 13 19.042 5.920 40839 41 19.500 5.140 40840 20 19.608 5.598 40841 8 21.986 5.113 40842 9 24.686 5.124 40843 8 24.687 5.104 40844 8 25.482 5.790 40845* 54 0.978 6.492 40846 10 2.040 6.512 40847 16 4.216 6.628 40848 9 6.773 6.352 40849 8 6.556 6.100 40850 19 8.332 6.959 40851 25 9.946 6.810 40852* 45 14.156 6.989 40853 14 16.251 6.280 40854 11 17.774 6.474 40855 16 17.817 6.210 40856 8 19.334 6.926 40857 19 20.354 6.872 40858 14 2.452 7.296 40859 24 7.079 7.718 40860 15 10.376 7.473 40861 18 11.352 7.253 40862 26 12.114 7.660 40863 8 13.330 7.614 40864 8 13.463 7.640 40865 11 14.580 7.928 40866 8 17.380 7.030 40867 30 20.207 7.572 40868 32 22.072 7.240 40869 8 22.508 7.866 40870 9 25.184 7.700 40871* 50 1.235 8.207 40872 15 1.649 8.760 40873 46 4.777 8.872 40874* 40 15.138 8.604 40875* 60 20.128 8.967 40876 9 23.044 8.470 40877 19 24.677 8.018 40878 17 1.292 9.388 40879 9 1.688 9.466	40825	20	15.176	4.387
40524	8	10.925	14.420	40598	13	6.375	19.266	40672	25	14.354	23.354		40826	8	15.854	4.720
40525	10	13.750	14.190	40599	8	6.547	19.382	40673	13	14.544	23.466		40827	8	16.788	4.062
40526	32	15.120	14.020	40600	27	6.610	19.848	40674	40	15.160	23.135		40828	19	22.666	4.318
40527	8	16.262	14.577	40601	9	7.102	19.417	40675	9	16.394	23.300		40829	9	22.988	4.112
40528	10	20.108	14.934	40602	12	9.144	19.934	40676	8	16.408	23.042		40830	8	4.397	5.631
40529	15	23.057	14.503	40603	8	11.624	19.066	40677	8	16.416	23.490		40831	9	4.471	5.220
40530	11	23.316	14.270	40604*	45	13.452	19.540	40678	21	17.766	23.123		40832	19	6.847	5.018
40531	36	25.684	14.095	40605	10	13.548	19.722	40679	18	19.670	23.746		40833	11	13.737	5.526
40532	9	1.912	15.156	40606	15	14.885	19.176	40680	8	19.846	23.934		40834	12	14.694	5.287
40533	14	2.726	15.939	40607	16	16.290	19.980	40681	29	20.180	23.465	40835 12 16.810 5.394 40836 38 18.428 5.778 40837 20 18.514 5.987 40838 13 19.042 5.920 40839 41 19.500 5.140 40840 20 19.608 5.598 40841 8 21.986 5.113 40842 9 24.686 5.124 40843 8 24.687 5.104 40844 8 25.482 5.790 40845* 54 0.978 6.492 40846 10 2.040 6.512 40847 16 4.216 6.628 40848 9 6.773 6.352 40849 8 6.556 6.100 40850 19 8.332 6.959 40851 25 9.946 6.810 40852* 45 14.156 6.989 40853 14 16.251 6.280 40854 11 17.774 6.474 40855 16 17.817 6.210 40856 8 19.334 6.926 40857 19 20.354 6.872 40858 14 2.452 7.296 40859 24 7.079 7.718 40860 15 10.376 7.473 40861 18 11.352 7.253 40862 26 12.114 7.660 40863 8 13.330 7.614 40864 8 13.463 7.640 40865 11 14.580 7.928 40866 8 17.380 7.030 40867 30 20.207 7.572 40868 32 22.072 7.240 40869 8 22.508 7.866 40870 9 25.184 7.700 40871* 50 1.235 8.207 40872 15 1.649 8.760 40873 46 4.777 8.872 40874* 40 15.138 8.604 40875* 60 20.128 8.967 40876 9 23.044 8.470 40877 19 24.677 8.018 40878 17 1.292 9.388 40879 9 1.688 9.466	40682	26	21.316	23.920
40534	8	10.024	15.652	40608	12	17.930	19.493	40683	35	21.852	23.196		40836	38	18.428	5.778
40535	12	10.942	15.543	40609	8	18.122	19.734	40684	10	22.346	23.264		40837	20	18.514	5.987
40536	8	14.966	15.042	40610	19	18.234	19.665	40685	10	25.030	23.974		40838	13	19.042	5.920
40537*	63	16.018	15.630	40611	9	18.586	19.740	40686	12	1.880	24.838		40839	41	19.500	5.140
40538	36	17.202	15.502	40612	8	21.162	19.960	40687	9	1.910	24.684		40840	20	19.608	5.598
40539	8	17.410	15.410	40613	14	22.906	19.236	40688	9	3.246	24.606		40841	8	21.986	5.113
40540	11	18.480	15.639	40614	21	23.176	19.590	40689	8	3.568	24.587		40842	9	24.686	5.124
40541	43	19.771	15.035	40615	10	23.708	19.966	40690	10	4.699	24.899		40843	8	24.687	5.104
40542	8	25.362	15.516	40616	24	7.254	20.880	40691	8	5.473	24.534		40844	8	25.482	5.790
40543	8	0.152	16.688	40617	10	8.312	20.758	40692	19	11.490	24.418	40845* 54 0.978 6.492 40846 10 2.040 6.512 40847 16 4.216 6.628 40848 9 6.773 6.352 40849 8 6.556 6.100 40850 19 8.332 6.959 40851 25 9.946 6.810 40852* 45 14.156 6.989 40853 14 16.251 6.280 40854 11 17.774 6.474 40855 16 17.817 6.210 40856 8 19.334 6.926 40857 19 20.354 6.872 40858 14 2.452 7.296 40859 24 7.079 7.718 40860 15 10.376 7.473 40861 18 11.352 7.253 40862 26 12.114 7.660 40863 8 13.330 7.614 40864 8 13.463 7.640 40865 11 14.580 7.928 40866 8 17.380 7.030 40867 30 20.207 7.572 40868 32 22.072 7.240 40869 8 22.508 7.866 40870 9 25.184 7.700 40871* 50 1.235 8.207 40872 15 1.649 8.760 40873 46 4.777 8.872 40874* 40 15.138 8.604 40875* 60 20.128 8.967 40876 9 23.044 8.470 40877 19 24.677 8.018 40878 17 1.292 9.388 40879 9 1.688 9.466	40693	28	11.650	24.500
40544	12	0.228	16.125	40618	9	9.487	20.300	40694	8	14.397	24.192		40845*	54	0.978	6.492



40880	19	2.120	9.038	40954	27	9.924	14.370	41028	21	4.516	20.850	41102	8	9.948	25.430	41187	12	16.438	2.372
40881	14	2.600	9.500	40955	10	10.522	14.295	41029	14	6.206	20.148	41103	11	10.426	25.953	41188	8	17.860	2.638
40882	19	5.099	9.058	40956	13	12.490	14.710	41030	13	6.229	20.572	41104	16	10.588	25.280	41189	20	19.286	2.915
40883	8	6.157	9.150	40957	15	13.052	14.570	41031	20	6.654	20.563	41105	13	13.526	25.140	41190	9	20.264	2.168
40884	10	6.664	9.672	40958	10	14.332	14.998	41032	12	9.323	20.376	41106	20	13.754	25.120	41191	8	21.034	2.653
40885	19	7.058	9.634	40959	12	21.133	14.924	41033	14	15.118	20.524	41107	8	16.810	25.268	41192*	37	21.160	2.310
40886	9	8.140	9.166	40960	16	25.784	14.488	41034	16	15.836	20.744	41108	13	18.111	25.180	41193	14	21.780	2.526
40887	20	8.814	9.294	40961	8	2.822	15.630	41035*	56	16.188	20.732	41109	9	18.315	25.786	41194	11	24.959	2.283
40888	21	11.498	9.736	40962	24	4.726	15.764	41036	8	18.164	20.189	41110	10	18.420	25.135	41195	10	1.446	3.559
40889	12	17.665	9.713	40963*	92	5.744	15.219	41037	16	22.456	20.088	41111	9	20.436	25.790	41196	20	2.636	3.872
40890	9	21.537	9.148	40964	10	9.138	15.507	41038	9	22.960	20.634	41112	34	20.727	25.062	41197	10	6.821	3.443
40891	13	24.800	9.570	40965	30	15.871	15.200	41039	58	25.452	20.306	41113	16	24.536	25.702	41198*	60	7.875	3.427
40892	13	25.090	9.873	40966	39	17.620	15.025	41040	26	0.616	21.991	41114	13	25.046	25.102	41199	20	8.880	3.868
40893	41	25.670	9.112	40967	39	18.743	15.260	41041	34	0.946	21.088	41115	41	25.246	25.488	41200	15	8.892	3.648
40894	9	25.743	9.328	40968	8	20.498	15.436	41042	15	2.190	21.107					41201	10	9.320	3.730
40895	19	5.377	10.644	40969	9	21.532	15.264	41043	14	4.155	21.368					41202	18	11.655	3.050
40896	10	5.822	10.810	40970	13	22.327	15.820	41044	8	5.190	21.368					41203	9	12.122	3.801
40897	8	6.891	10.951	40971	10	22.412	15.388	41045	16	5.818	21.732					41204	8	14.032	3.961
40898	13	7.452	10.434	40972	31	25.500	15.830	41046	8	6.406	21.342					41205	10	23.355	3.772
40899	13	8.046	10.070	40973	27	25.572	15.470	41047	10	7.034	21.848					41206	9	23.884	3.701
40900	8	14.864	10.704	40974	11	25.707	15.294	41048	19	9.218	21.868					41207	11	0.260	4.407
40901	28	18.800	10.819	40975	8	25.992	15.702	41049	9	12.154	21.550					41208	8	0.580	4.198
40902	13	19.261	10.900	40976	8	4.260	16.416	41050	23	16.462	21.834					41209	18	6.742	4.142
40903	10	21.211	10.370	40977	8	6.585	16.782	41051	8	17.577	21.656					41210	17	7.355	4.748
40904	15	22.343	10.900	40978	19	7.146	16.892	41052	18	17.610	21.308					41211	8	7.547	4.447
40905	19	24.963	10.690	40979	12	9.574	16.910	41053	8	17.954	21.512					41212	22	7.646	4.116
40906	27	25.518	10.098	40980	25	11.700	16.973	41054	17	20.033	21.370					41213	8	8.370	4.395
40907	8	25.868	10.254	40981	13	18.179	16.150	41055	20	21.684	21.983					41214	11	10.507	4.466
40908	11	0.041	11.694	40982	22	21.729	16.614	41056	12	23.594	21.333					41215	10	10.484	4.066
40909	15	0.531	11.025	40983	19	24.742	16.504	41057	13	24.208	21.042					41216	13	11.052	4.749
40910	16	0.884	11.722	40984	18	25.950	16.750	41058	17	25.672	21.919					41217	15	11.172	4.472
40911	29	10.282	11.092	40985	35	3.292	17.778	41059	8	0.650	22.215					41218	8	19.585	4.505
40912	8	12.064	11.713	40986	14	3.312	17.568	41060	8	1.346	22.142					41219	12	20.365	4.493
40913	19	12.294	11.400	40987	16	8.016	17.162	41061	19	3.116	22.158					41220	8	2.290	5.185
40914	9	14.900	11.920	40988	12	15.625	17.169	41062	18	5.705	22.244					41221	8	2.290	5.166
40915	28	16.020	11.460	40989	20	18.282	17.248	41063	16	6.570	22.466					41222	8	2.713	5.151
40916	35	16.524	11.668	40990	15	18.533	17.576	41064	18	6.628	22.388					41223	8	3.094	5.844
40917	22	19.934	11.868	40991	13	23.370	17.354	41065	12	9.266	22.222					41224	8	5.985	5.765
40918	15	20.401	11.524	40992	23	24.729	17.962	41066	8	11.704	22.250					41225	11	6.155	5.682
40919	10	22.680	11.345	40993	11	24.802	17.134	41067	20	14.404	22.118					41226	23	7.146	5.670
40920	13	23.531	11.175	40994	11	1.988	18.854	41068	13	15.382	22.659					41227	8	8.016	5.439
40921	20	1.302	12.887	40995	10	2.049	18.484	41069	24	17.780	22.028					41228	9	8.294	5.407
40922	10	2.237	12.478	40996	8	2.270	18.906	41070	11	21.355	22.730					41229	8	11.514	5.275
40923	26	5.028	12.180	40997	19	5.026	18.890	41071	24	21.450	22.100					41230	10	12.408	5.026
40924	33	6.086	12.702	40998	29	6.984	18.350	41072	9	23.752	22.190					41231	29	16.464	5.085
40925	13	7.805	12.060	40999*	74	9.673	18.404	41073	17	25.491	22.342					41232	8	16.496	5.400
40926	13	9.387	12.063	41000*	53	9.756	18.406	41074	20	4.880	23.327					41233	10	17.732	5.535
40927	19	10.198	12.735	41001	10	11.516	18.322	41075	8	6.558	23.618					41234	8	19.346	5.830
40928	22	11.912	12.152	41002*	63	11.836	18.123	41076	27	11.385	23.890					41235	12	20.248	5.825
40929	16	12.300	12.546	41003	31	12.232	18.685	41077	8	12.913	23.610					41236	8	21.358	5.844
40930	18	15.678	12.846	41004	28	13.496	18.936	41078	9	17.060	23.084					41237	13	24.376	5.936
40931*	53	17.974	12.151	41005	12	13.733	18.810	41079	8	17.482	23.460					41238	11	24.775	5.796
40932*	44	18.752	12.398	41006	31	17.134	18.738	41080	10	18.402	23.024					41239	10	4.184	6.262
40933	9	22.921	12.645	41007	14	20.358	18.716	41081	10	18.664	23.030					41240	8	4.354	6.313
40934	12	23.304	12.712	41008	33	24.760	18.345	41082	10	19.424	23.410					41241	10	7.214	6.971
40935*	46	23.912	12.512	41009	19	25.040	18.308	41083	17	20.924	23.148					41242	8	8.589	6.630
40936	20	24.467	12.020	41010	8	25.116	18.788	41084	18	21.371	23.591					41243	9	9.348	6.147
40937	13	24.828	12.860	41011	16	0.382	19.364	41085	24	24.070	23.536					41244	8	9.775	6.826
40938	20	5.157	13.652	41012	27	0.652	19.716	41086	16	2.532	24.093					41245	29	9.922	6.856
40939	15	13.130	13.750	41013	10	2.715	19.157	41087*	50	4.742	24.717					41246	9	13.251	6.216
40940	8	14.792	13.174	41014*	49	4.725	19.104	41088	12	4.958	24.580					41247	20	14.468	6.685
40941	20	22.906	13.212	41015	18	6.972	19.370	41089	11	9.860	24.940					41248	14	19.661	6.327
40942	27	23.076	13.190	41016	20	8.086	19.242	41090	12	16.059	24.436					41249	9	20.875	6.785
40943	9	23.608	13.668	41017	11	8.423	19.507	41091	21	16.479	24.432					41250	25	23.666	6.399
40944	26	23.806	13.631	41018	20	12.057	19.300	41092	20	16.986	24.770					41251	8	24.384	6.851
40945	9	24.921	13.190	41019	8	12.581	19.986	41093	39	19.558	24.272					41252	15	25.356	6.811
40946	20	0.512	14.629	41020	16	12.778	19.151	41094	8	20.264	24.100					41253	8	2.824	7.756
40947	12	0.770	14.396	41021	8	13.864	19.196	41095	10	20.877	24.226					41254*	72	6.018	7.566
40948	36	3.135	14.210	41022	13	17.058	19.310	41096*	49	23.522	24.288					41255			



41261	8	19.264	7.918	41335	10	8.532	12.032	41409	11	19.446	17.416	41483	8	2.791	22.444
41262	11	19.774	7.058	41336	8	11.138	12.128	41410	8	19.738	17.484	41484	12	3.330	22.390
41263	10	19.886	7.970	41337	18	11.811	12.012	41411	20	20.722	17.000	41485	33	4.221	22.134
41264	10	21.040	7.006	41338	8	12.826	12.333	41412	12	20.965	17.174	41486	21	4.974	22.747
41265	10	21.268	7.193	41339	10	18.674	12.694	41413	13	21.710	17.634	41487	14	6.525	22.878
41266	19	21.516	7.792	41340	12	18.815	12.590	41414	32	22.028	17.426	41488*	23	13.182	22.327
41267	20	25.290	7.610	41341	11	19.740	12.958	41415	14	23.332	17.048	41489	8	19.460	22.120
41268	8	0.692	8.553	41342	26	20.957	12.164	41416	9	23.965	17.192	41490	8	19.616	22.115
41269	13	2.318	8.078	41343	10	25.424	12.300	41417	23	24.998	17.080	41491	15	20.594	22.025
41270	8	5.815	8.350	41344	11	0.618	13.298	41418	8	25.084	17.384	41492	9	20.748	22.616
41271	8	5.900	8.495	41345	15	0.788	13.273	41419	14	2.506	18.024	41493	14	22.820	22.398
41272	8	11.455	8.703	41346	8	1.326	13.745	41420	24	2.542	18.403	41494	12	23.403	22.522
41273	12	11.713	8.922	41347	14	1.524	13.704	41421	12	2.822	18.362	41495	14	1.921	23.604
41274	20	17.846	8.932	41348	8	2.632	13.250	41422	8	2.904	18.842	41496	15	4.036	23.550
41275	10	19.245	8.718	41349	8	6.464	13.601	41423	34	9.935	18.826	41497	14	5.055	23.014
41276	8	20.598	8.354	41350	8	7.905	13.409	41424	8	10.486	18.238	41498	9	7.022	23.574
41277	10	22.055	8.587	41351	8	8.539	13.264	41425	12	14.475	18.264	41499	9	8.952	23.898
41278	10	2.464	9.628	41352	8	8.678	13.876	41426	9	15.686	18.586	41500	8	12.510	23.200
41279	10	2.758	9.928	41353	8	11.598	13.141	41427	9	19.614	18.914	41501	12	12.674	23.428
41280	26	3.324	9.160	41354	10	12.459	13.051	41428	11	19.946	18.274	41502	10	13.113	23.487
41281	8	3.404	9.375	41355	14	12.479	13.861	41429	25	20.620	18.780	41503	12	13.319	23.937
41282	8	3.647	9.281	41356	18	18.835	13.009	41430	8	21.085	18.542	41504	26	13.628	23.638
41283	10	9.520	9.726	41357	12	22.604	13.925	41431	8	21.305	18.074	41505	8	14.857	23.774
41284*	32	10.579	9.546	41358	8	23.813	13.950	41432*	53	0.855	19.854	41506	8	18.081	23.755
41285	20	12.110	9.228	41359	10	3.514	14.534	41433	10	1.180	19.225	41507	26	18.970	23.262
41286	10	13.812	9.590	41360	8	4.812	14.641	41434	12	4.965	19.874	41508	8	19.316	23.425
41287	8	19.700	9.866	41361	12	5.414	14.552	41435	16	6.476	19.798	41509	10	20.775	23.563
41288	11	20.064	9.864	41362	34	7.306	14.874	41436	10	7.155	19.524	41510	8	24.040	23.225
41289	20	21.587	9.712	41363	14	9.941	14.771	41437	20	7.377	19.660	41511	*40	1.382	24.362
41290	8	24.972	9.924	41364	8	10.108	14.822	41438	13	9.740	19.266	41512	15	3.440	24.576
41291	15	25.354	9.685	41365	20	10.886	14.398	41439	10	13.879	19.009	41513	12	7.652	24.355
41292	12	2.642	10.747	41366	14	11.014	14.675	41440	11	14.957	19.423	41514	8	9.265	24.465
41293	16	3.187	10.148	41367*	55	14.333	14.024	41441	10	15.072	19.596	41515	22	12.185	24.205
41294	11	4.632	10.201	41368	20	20.344	14.432	41442	12	15.656	19.407	41516*	74	15.167	24.691
41295	12	8.815	10.364	41369	10	22.158	14.388	41443	12	16.846	19.706	41517*	44	15.266	24.807
41296	8	10.250	10.265	41370	22	23.581	14.174	41444	8	19.929	19.156	41518	15	16.165	24.371
41297	8	11.338	10.586	41371	10	23.861	14.028	41445	19	20.170	19.098	41519	13	23.886	24.438
41298	13	15.523	10.744	41372	10	0.076	15.913	41446	8	20.184	19.464	41520	8	24.429	24.220
41299	8	16.795	10.171	41373	17	3.246	15.878	41447	8	20.568	19.890	41521	9	24.981	24.364
41300	13	18.317	10.844	41374	16	3.315	15.518	41448	9	22.235	19.704	41522	12	25.600	24.428
41301	23	19.840	10.144	41375	9	3.448	15.339	41449	8	24.601	19.485	41523	10	2.422	25.762
41302	10	22.372	10.466	41376	12	4.300	15.005	41450	10	0.264	20.177	41524	10	2.922	25.155
41303	8	22.855	10.350	41377	10	4.926	15.583	41451*	45	3.255	20.352	41525	32	3.121	25.537
41304	8	22.900	10.290	41378	10	7.386	15.974	41452	14	7.360	20.990	41526	10	6.824	25.814
41305	20	23.510	10.718	41379	10	14.494	15.314	41453*	68	9.487	20.727	41527	11	7.308	25.833
41306	20	23.790	10.275	41380	12	19.173	15.665	41454	8	10.103	20.104	41528	8	7.732	25.486
41307	24	24.072	10.385	41381	9	19.586	15.980	41455	8	10.224	20.136	41529	12	8.215	25.484
41308*	40	24.088	10.318	41382	10	25.180	15.730	41456	10	10.932	20.165	41530	8	10.321	25.742
41309	22	24.606	10.395	41383	12	2.500	16.564	41457	11	11.286	20.865	41531	29	13.235	25.376
41310	8	25.512	10.414	41384	10	3.714	16.792	41458	16	12.214	20.372	41532	10	13.698	25.040
41311	8	1.216	11.253	41385	37	4.990	16.912	41459	9	18.850	20.684	41533	9	15.802	25.504
41312	23	5.088	11.728	41386*	38	7.711	16.853	41460	8	18.936	20.156	41534	8	19.756	25.270
41313	8	6.968	11.691	41387	15	8.156	16.394	41461	8	22.181	20.716	41535	10	21.552	25.933
41314	8	7.779	11.652	41388	20	10.832	16.384	41462	8	1.416	21.407	41536	20	25.859	25.684
41315	12	9.018	11.223	41389*	112	15.425	16.972	41463	8	2.030	21.105				
41316	10	12.149	11.434	41390	8	15.818	16.919	41464	11	3.504	21.964				
41317	8	12.842	11.704	41391	9	17.876	16.137	41465	11	6.178	21.852				
41318	12	13.182	11.797	41392	8	19.243	16.946	41466	10	6.202	21.038				
41319*	45	14.040	11.992	41393	12	20.120	16.401	41467*	31	8.486	21.950				
41320	8	14.961	11.776	41394	26	21.504	16.607	41468	11	8.498	21.104				
41321	11	15.471	11.690	41395	11	23.978	16.815	41469	8	10.668	21.381				
41322	10	16.173	11.802	41396	9	1.140	17.432	41470	21	11.084	21.924				
41323	32	18.474	11.396	41397	8	4.184	17.646	41471	19	15.830	21.820				
41324	8	19.459	11.495	41398	8	4.635	17.255	41472	25	16.084	21.550				
41325	10	19.487	11.500	41399*	37	7.311	17.282	41473	8	17.344	21.535				
41326	9	20.420	11.218	41400	8	8.973	17.714	41474	20	17.740	21.504				
41327	8	23.466	11.888	41401	8	9.022	17.377	41475	18	18.315	21.850				
41328	8	1.010	12.792	41402	12	9.976	17.332	41476	10	20.035	21.224				
41329*	42	1.612	12.585	41403	9	10.360	17.740	41477	8	21.296	21.464				
41330	11	2.165	12.084	41404	10	12.315	17.385	41478	8	21.476	21.618				
41331	8	2.538	12.920	41405	8	13.302	17.572	41479	8	22.488	21.407				
41332	8	4.334	12.803	41406	10	16.916	17.976	41480	20	22.925	21.346				
41333	9	7.148	12.552	41407	8	17.899	17.412	41481	8	25.971	21.565				
41334	8	8.290	12.390	41408	8	18.376	17.724	41482	11	2.318	22.008				

R.A. 15<sup>h</sup> 16<sup>m</sup>

Plate 668; 1916 Apr. 9.

Provisional Constants.

A B C  
 -0.2578 +.00043 +1.1277

D E F  
 -0.0058 -0.2568 -1.454

Mag. = 17.7 - 1.09√d

No.	d	x	y
41550	11	0.411	0.588
41551	10	2.760	0.988
41552	39	4.561	0.862
41553	10	5.159	0.890
41554	26	6.416	0.812
41555	40	9.024	0.084
41556	25	11.196	0.064
41557	36	13.896	0.313
41558	14	14.570	0.126
41559	14	15.442	0.114
41560	8	16.175	0.180
41561	30	17.002	0.519
41562	23	18.512	0.687
41563	34	19.128	0.444
41564	22	19.404	0.466
41565	10	20.826	0.659
41566	8	21.886	0.267
41567	18	22.906	0.298
41568	11	23.006	0.270
41569	17	3.220	1.380
41570	19	6.803	1.382
41571	15	6.876	1.850
41572*	58	11.186	1.584
41573	8	11.850	1.846
41574	24	13.994	1.258
41575	30	19.895	1.947
41576	16	21.834	1.244
41577	11	22.380	1.942
41578	11	25.182	1.986
41579	20	0.304	2.772
41580	20	3.484	2.516
41581	10	4.000	2.348
41582	13	9.596	2.683
41583	12	12.565	2.263
41584	13	14.008	2.892
41585	8	15.342	2.848
41586	11	15.428	2.732
41587	8	16.063	2.671
41588	24	17.246	2.075
41589	15	18.170	2.337
41590	14	18.885	2.317
41591	27	19.158	2.502
41592	8	21.094	2.246
41593	8	21.950	2.173
41594	32	22.187	2.650
41595	8	24.260	2.720
41596	8	25.105	2.379
41597	8	1.994	3.742
41598	13	2.414	3.937
41599	40	5.236	3.519
41600	15	6.812	3.634
41601	23	7.064	3.707
41602	8	8.300	3.769
41603	25	9.752	3.876
41604	8	11.149	3.904
41605	21	12.070	3.174



41606	8	15.122	3.181	41680*	60	21.756	8.326	41754	17	22.664	12.992	41828	22	0.304	17.880	41902	9	4.584	21.790
41607	8	16.288	3.780	41681*	54	21.766	8.221	41755	8	5.138	13.632	41829	46	0.622	17.673	41903	32	5.833	21.892
41608	8	17.491	3.744	41682	8	22.955	8.806	41756	8	6.054	13.678	41830	24	1.925	17.286	41904	8	6.643	21.524
41609	35	19.041	3.006	41683	8	24.674	8.342	41757	11	9.851	13.697	41831	15	2.570	17.050	41905	19	8.059	21.106
41610*	64	19.084	3.247	41684	20	25.098	8.343	41758	8	14.395	13.370	41832	11	2.557	17.426	41906	9	10.561	21.861
41611	8	21.360	3.317	41685	14	25.855	8.372	41759	10	15.046	13.082	41833	8	2.627	17.297	41907	8	11.188	21.826
41612	19	24.034	3.943	41686	33	0.144	9.957	41760	27	18.214	13.764	41834	42	3.588	17.311	41908*	100	11.620	21.840
41613	14	1.886	4.010	41687	28	3.909	9.916	41761	16	18.908	13.875	41835	8	3.676	17.613	41909	10	13.975	21.770
41614	11	5.147	4.996	41688	8	7.084	9.932	41762	24	19.548	13.781	41836	28	8.006	17.075	41910	10	20.446	21.434
41615	36	8.996	4.380	41689	8	7.148	9.950	41763	31	22.362	13.706	41837	11	8.210	17.578	41911	8	21.003	21.228
41616	8	9.214	4.786	41690	10	9.860	9.156	41764	8	22.580	13.428	41838	8	8.572	17.192	41912	22	22.484	21.880
41617	16	10.614	4.275	41691	29	12.444	9.489	41765	42	25.796	13.064	41839	9	9.126	17.100	41913	25	24.532	21.941
41618	11	10.788	4.958	41692	8	13.926	9.391	41766	10	0.386	14.500	41840	8	9.317	17.446	41914	40	24.770	21.264
41619	8	12.106	4.710	41693	8	17.696	9.040	41767	9	0.736	14.634	41841	17	10.482	17.130	41915	8	25.514	21.158
41620	13	13.568	4.693	41694	8	17.797	9.253	41768	22	1.180	14.166	41842	10	12.544	17.577	41916	8	25.784	21.056
41621	8	15.782	4.209	41695	8	18.298	9.446	41769	8	1.494	14.104	41843	10	13.781	17.314	41917	20	1.436	22.640
41622	17	18.063	4.592	41696	8	18.754	9.920	41770	38	2.157	14.413	41844	10	14.126	17.923	41918	21	2.019	22.758
41623	24	18.846	4.984	41697	22	21.950	9.499	41771	8	2.391	14.186	41845	8	15.608	17.438	41919	30	4.998	22.108
41624	19	19.994	4.278	41698	10	22.594	9.830	41772	9	2.438	14.264	41846	9	15.668	17.434	41920	33	8.776	22.084
41625*	48	20.165	4.567	41699	10	23.320	9.091	41773	8	3.124	14.801	41847	8	17.132	17.508	41921*	46	9.614	22.450
41626	9	25.367	4.974	41700	11	24.024	9.231	41774	27	8.413	14.702	41848	40	20.418	17.086	41922	19	9.908	22.231
41627	8	0.900	5.787	41701	40	24.109	9.436	41775	10	8.692	14.436	41849	10	20.550	17.110	41923	20	11.752	22.381
41628	14	4.944	5.004	41702*	57	24.378	9.514	41776	9	10.650	14.625	41850	43	22.168	17.272	41924*	60	12.716	22.552
41629	8	6.454	5.080	41703	8	24.934	9.030	41777	24	11.686	14.354	41851	14	22.278	17.637	41925	14	14.258	22.130
41630	12	8.701	5.410	41704	10	0.934	10.708	41778	8	11.954	14.345	41852	21	24.046	17.576	41926*	60	15.340	22.986
41631	8	10.377	5.778	41705	8	1.416	10.592	41779	8	14.915	14.690	41853	8	25.866	17.231	41927	14	24.594	22.382
41632	30	13.490	5.846	41706	11	1.459	10.534	41780	8	15.106	14.968	41854	21	4.916	18.448	41928	11	2.658	23.460
41633	11	14.800	5.392	41707	32	2.071	10.956	41781	8	16.723	14.660	41855	8	5.348	18.649	41929	11	5.436	23.084
41634	8	16.870	5.694	41708	32	2.350	10.512	41782	15	17.226	14.480	41856	41	7.815	18.294	41930	9	6.920	23.714
41635	8	17.577	5.556	41709	38	2.650	10.620	41783	9	20.094	14.606	41857	28	7.904	18.644	41931*	84	7.594	23.350
41636	44	19.335	5.176	41710*	60	2.645	10.554	41784*	57	20.820	14.729	41858	8	9.182	18.384	41932*	52	7.688	23.857
41637	10	20.948	5.530	41711	36	3.166	10.626	41785	27	21.234	14.132	41859	35	10.346	18.466	41933	8	12.076	23.364
41638	12	21.626	5.406	41712	8	4.076	10.641	41786	31	21.336	14.135	41860	17	10.854	18.402	41934	14	14.606	23.995
41639	15	24.110	5.739	41713	8	4.894	10.085	41787	23	21.616	14.653	41861	8	11.860	18.182	41935	8	15.114	23.271
41640	21	25.702	5.624	41714	37	5.032	10.157	41788	8	22.964	14.606	41862	8	11.881	18.626	41936	8	15.638	23.415
41641	40	2.206	6.636	41715	12	13.686	10.563	41789	12	3.765	15.960	41863	8	13.325	18.756	41937	8	18.954	23.450
41642	29	2.916	6.172	41716	8	15.332	10.386	41790	8	4.974	15.928	41864	10	13.752	18.048	41938	8	20.113	23.038
41643	24	3.314	6.030	41717	43	18.616	10.853	41791	8	5.204	15.893	41865	23	18.094	18.173	41939	26	2.514	24.674
41644	8	5.642	6.420	41718	8	19.792	10.456	41792	32	11.146	15.150	41866	12	20.059	18.736	41940	8	3.056	24.453
41645	14	7.136	6.764	41719	10	21.140	10.396	41793	10	11.356	15.222	41867	26	20.842	18.475	41941	20	3.608	24.597
41646	10	10.225	6.750	41720	8	21.190	10.686	41794	11	11.374	15.152	41868	8	23.372	18.910	41942	31	4.226	24.658
41647	29	13.818	6.382	41721	8	21.298	10.755	41795	12	12.986	15.314	41869	8	0.838	19.950	41943	8	4.672	24.964
41648	22	21.382	6.323	41722	10	24.790	10.534	41796	12	17.454	15.774	41870	9	3.205	19.716	41944	8	5.182	24.549
41649	8	21.873	6.402	41723	10	24.901	10.116	41797	8	17.924	15.088	41871	8	4.045	19.902	41945	44	5.430	24.512
41650	9	22.626	6.823	41724	9	5.143	11.194	41798	8	20.246	15.957	41872	27	9.212	19.624	41946	8	6.812	24.592
41651	13	25.976	6.765	41725	21	8.362	11.100	41799	8	20.634	15.086	41873	14	9.370	19.470	41947	8	9.034	24.092
41652	8	2.930	7.084	41726	8	8.760	11.224	41800	25	21.430	15.900	41874	58	10.326	19.514	41948	13	9.749	24.986
41653	8	3.450	7.536	41727	25	8.820	11.204	41801	8	22.948	15.691	41875	27	10.892	19.914	41949	9	11.696	24.828
41654	32	3.836	7.840	41728	24	9.162	11.284	41802	52	23.930	15.344	41876	15	10.944	19.476	41950	8	13.048	24.899
41655	33	3.901	7.040	41729	8	9.396	11.989	41803	24	24.780	15.150	41877	8	11.612	19.374	41951	11	13.506	24.920
41656	17	5.607	7.613	41730	9	9.533	11.736	41804	44	0.092	16.854	41878	9	11.774	19.263	41952	30	14.092	24.172
41657	13	6.508	7.348	41731	10	10.033	11.638	41805	8	0.323	16.068	41879	19	14.494	19.967	41953	20	14.133	24.190
41658	36	7.856	7.475	41732	8	10.312	11.126	41806	8	5.370	16.506	41880	8	14.685	19.216	41954	8	14.324	24.306
41659	10	9.384	7.668	41733	11	14.520	11.832	41807	8	7.865	16.404	41881	14	15.479	19.028	41955	8	16.195	24.929
41660	9	11.604	7.394	41734	9	14.598	11.284	41808	8	8.226	16.360	41882	18	17.346	19.290	41956	24	16.060	24.018
41661	25	12.346	7.140	41735	8	15.706	11.015	41809	8	8.660	16.518	41883	8	17.566	19.804	41957	11	22.158	24.057
41662	10	13.206	7.555	41736	8	16.466	11.578	41810	21	9.234	16.166	41884	23	18.868	19.198	41958*	41	22.546	24.512
41663	12	15.770	7.216	41737	23	19.629	11.570	41811	37	10.229	16.406	41885	48	19.034	19.586	41959	22	25.536	24.264
41664*	58	16.734	7.074	41738	14	21.146	11.988	41812	8	14.176	16.286	41886	8	19.422	19.819	41960	40	4.492	25.912
41665	16	16.878	7.135	41739	20	25.059	11.970	41813	8	14.526	16.550	41887	8	23.632	19.841	41961	17	6.647	25.977
41666	23	21.605	7.750	41740	8	2.034	12.126	41814*	60	14.634	16.279	41888	21	8.366	20.744	41962	46	8.936	25.688
41667	8	22.608	7.584	41741	10	3.999	12.528	41815	8	14.826	16.334	41889	13	16.396	20.818	41963	8	9.033	25.992
41668	10	24.806	7.514	41742	41	4.626	12.810	41816	9	15.054	16.650	41890	13	18.784	20.568	41964</			



R.A. 15 <sup>h</sup> 24 <sup>m</sup>				42056	18	16.755	3.654	42130	10	1.596	8.954	42204	34	18.426	11.887	42278	10	25.148	15.409
Plate 638; 1916 Mar. 8.				42057	10	17.907	3.966	42131	20	1.746	8.264	42205	10	20.698	11.282	42279	21	1.338	16.396
Provisional Constants.				42058	8	19.856	3.858	42132	13	2.503	8.278	42206	15	22.009	11.822	42280	9	4.932	16.776
A B C				42059	10	20.336	3.762	42133	10	3.089	8.822	42207	11	22.122	11.157	42281	8	5.672	16.084
-0.02572 +.00632 +.1217				42060	9	20.438	3.731	42134*	38	4.188	8.653	42208*	62	22.204	11.256	42282	38	11.468	16.717
D E F				42061	12	20.537	3.877	42135	8	10.705	8.952	42209	9	22.645	11.617	42283	20	11.722	16.638
-0.00635 -0.02558 -2316				42062	12	23.046	3.925	42136	11	16.084	8.796	42210	8	0.735	12.014	42284	10	12.226	16.876
Mag. = 16.6 - 1.09√d				42063	10	23.662	3.011	42137	9	17.075	8.714	42211	36	2.517	12.972	42285	18	13.192	16.529
				42064	12	24.130	3.214	42138	8	17.454	8.451	42212	8	4.446	12.774	42286	8	13.474	16.686
				42065	10	24.325	3.431	42139*	40	18.442	8.618	42213	8	8.574	12.144	42287	31	14.320	16.455
				42066	12	1.966	4.890	42140	20	22.864	8.737	42214	10	9.795	12.165	42288	13	14.905	16.874
				42067	17	8.125	4.826	42141	13	23.714	8.296	42215	13	10.023	12.315	42289	10	14.945	16.066
				42068	12	9.172	4.318	42142*	53	24.886	8.324	42216	10	10.610	12.320	42290	13	15.695	16.186
				42069	8	9.222	4.676	42143	18	25.225	8.320	42217	20	11.414	12.802	42291	20	17.220	16.126
				42070	8	10.164	4.701	42144	12	0.687	9.170	42218	10	11.765	12.232	42292	19	17.236	16.426
				42071	12	10.833	4.691	42145	29	0.775	9.374	42219	8	12.432	12.391	42293	18	17.425	16.651
				42072	8	14.174	4.162	42146*	40	1.042	9.444	42220	20	12.581	12.760	42294	10	19.753	16.508
				42073	11	14.464	4.055	42147	37	4.015	9.042	42221	11	13.724	12.396	42295	20	20.230	16.034
				42074	8	15.318	4.526	42148*	44	4.275	9.424	42222	8	13.866	12.414	42296	10	22.435	16.851
				42075	18	15.422	4.908	42149	11	4.600	9.715	42223	25	15.842	12.633	42297	11	23.714	16.435
				42076	8	15.500	4.826	42150	20	6.938	9.664	42224	20	15.894	12.174	42298	16	0.842	17.511
				42077	11	16.030	4.129	42151	24	8.742	9.204	42225	11	16.016	12.876	42299	9	2.656	17.136
				42078	8	17.095	4.345	42152	10	8.894	9.916	42226	19	16.662	12.861	42300	8	3.726	17.890
				42079	16	17.254	4.547	42153	12	8.956	9.072	42227	33	17.958	12.774	42301	9	3.772	17.490
				42080	14	19.144	4.468	42154	9	12.696	9.523	42228	8	22.316	12.756	42302	20	3.924	17.958
				42081	13	21.322	4.452	42155	12	13.541	9.566	42229	10	24.062	12.612	42303	20	4.774	17.763
				42082	12	22.716	4.936	42156	10	15.944	9.956	42230	11	24.938	12.002	42304	8	8.300	17.068
				42083	12	0.720	5.676	42157	9	16.634	9.172	42231	18	9.513	13.938	42305	8	9.643	17.740
				42084	17	2.308	5.536	42158	18	17.551	9.922	42232	15	9.653	13.426	42306	8	9.940	17.997
				42085	11	4.666	5.875	42159	15	20.441	9.364	42233*	91	12.654	13.489	42307	8	10.417	17.806
				42086	8	8.654	5.020	42160	21	20.725	9.125	42234	11	12.964	13.438	42308	9	12.274	17.669
				42087*	80	8.938	5.000	42161	12	20.852	9.720	42235	9	13.416	13.072	42309	9	14.796	17.700
				42088	10	12.924	5.868	42162	10	20.904	9.114	42236	20	14.107	13.635	42310	15	15.945	17.365
				42089*	23	14.530	5.502	42163	10	21.142	9.934	42237	20	15.595	13.026	42311	10	21.530	17.999
				42090	13	17.053	5.093	42164	11	24.898	9.382	42238	8	16.698	13.344	42312*	34	21.735	17.284
				42091	10	18.635	5.375	42165	10	1.475	10.458	42239	17	21.950	13.900	42313	12	21.776	17.168
				42092	10	19.533	5.602	42166	10	1.578	10.041	42240	21	22.066	13.304	42314	24	22.265	17.265
				42093	19	20.556	5.934	42167	32	3.240	10.174	42241*	45	24.910	13.775	42315	8	25.662	17.385
				42094	10	20.644	5.259	42168	15	6.162	10.441	42242	17	25.570	13.343	42316	10	25.816	17.304
				42095	10	20.688	5.754	42169	8	7.059	10.831	42243	9	4.281	14.077	42317	8	0.191	18.855
				42096	8	23.196	5.738	42170*	40	7.536	10.124	42244	14	8.595	14.598	42318	20	7.560	18.779
				42097	13	2.600	6.673	42171	15	13.224	10.273	42245	20	12.102	14.864	42319	8	10.231	18.600
				42098	10	5.586	6.444	42172	13	15.474	10.506	42246	31	12.290	14.128	42320	20	11.708	18.941
				42099	8	5.670	6.158	42173	12	16.145	10.462	42247	8	13.052	14.303	42321	14	17.690	18.985
				42100	10	9.106	6.150	42174	9	16.539	10.285	42248	9	13.359	14.976	42322	14	19.715	18.822
				42101	12	9.776	6.115	42175	18	16.990	10.316	42249	18	15.749	14.812	42323	23	21.126	18.926
				42102	8	11.163	6.939	42176	11	17.904	10.747	42250	8	16.724	14.684	42324	12	24.171	18.542
				42103	14	11.344	6.877	42177	11	18.617	10.226	42251	16	17.169	14.826	42325	8	24.642	18.977
				42104	10	11.773	6.074	42178	12	20.110	10.776	42252	10	17.602	14.180	42326	12	24.754	18.695
				42105*	46	13.072	6.472	42179	10	20.485	10.910	42253	20	18.448	14.340	42327	8	0.462	19.779
				42106	9	15.188	6.812	42180	28	21.802	10.330	42254	8	20.734	14.182	42328	20	4.856	19.371
				42107	9	19.442	6.322	42181	10	22.653	10.036	42255	12	21.036	14.196	42329	11	6.387	19.244
				42108	21	20.294	6.648	42182	12	24.126	10.386	42256	38	0.690	15.282	42330	12	7.322	19.926
				42109	32	20.490	6.614	42183	8	0.872	11.866	42257	18	1.536	15.074	42331	13	8.103	19.026
				42110*	120	22.004	6.636	42184	14	1.765	11.890	42258	28	3.924	15.185	42332	8	8.381	19.261
				42111	15	22.900	6.205	42185	12	3.991	11.892	42259	9	7.234	15.140	42333	8	8.600	19.224
				42112	10	23.136	6.258	42186	10	4.672	11.900	42260	18	7.655	15.866	42334	11	9.715	19.818
				42113	9	24.535	6.170	42187	8	6.284	11.582	42261	10	8.336	15.586	42335	8	13.940	19.013
				42114	10	1.444	7.438	42188	8	7.424	11.102	42262	8	8.522	15.386	42336	10	14.379	19.790
				42115	11	2.033	7.080	42189	10	7.553	11.134	42263	9	10.126	15.049	42337	10	14.586	19.754
				42116	8	2.301	7.305	42190	8	9.374	11.644	42264	10	10.926	15.446	42338	28	15.286	19.726
				42117	27	3.950	7.194	42191	10	9.530	11.065	42265	9	11.762	15.635	42339	9	16.410	19.896
				42118	10	4.425	7.803	42192	12	10.510	11.224	42266	10	12.440	15.874	42340	13	17.435	19.196
				42119	9	5.829	7.153	42193	8	10.615	11.095	42267	12	13.221	15.805	42341	11	17.484	19.532
				42120	35	9.071	7.517	42194	10	11.210	11.717	42268	10	13.426	15.624	42342	10	17.984	19.612
				42121	12	11.283	7.772	42195	10	13.070	11.872	42269	8	15.137	15.114	42343	9	18.587	19.570
				42122	23	12.708	7.778	42196	8	13.470	11.275	42270	10	17.934	15.435	42344	8	20.430	19.063
				4															



42352	12	2.265	20.584	42426	20	12.074	23.044	42556	40	15.208	3.563	42630	19	1.328	8.856
42353	40	3.696	20.051	42427	27	12.095	23.605	42557	29	15.533	3.043	42631	68	2.496	8.871
42354	8	4.773	20.156	42428	11	16.235	23.693	42558	8	16.176	3.172	42632	28	2.838	8.867
42355	35	4.845	20.016	42429	9	16.240	23.426	42559	30	16.308	3.413	42633	31	5.650	8.278
42356	14	5.947	20.345	42430	10	19.594	23.494	42560	31	17.836	3.715	42634	24	8.756	8.080
42357	14	6.134	20.989	42431	13	21.113	23.528	42561	8	20.732	3.215	42635	27	8.886	8.136
42358	18	8.940	20.424	42432	10	23.325	23.760	42562	9	20.818	3.390	42636	9	10.903	8.674
42359	10	9.796	20.600	42433	8	23.480	23.306	42563	14	21.894	3.689	42637	22	11.010	8.767
42360	8	10.428	20.942	42434	20	23.874	23.324	42564	10	24.208	3.533	42638	30	11.120	8.659
42361	13	12.561	20.904	42435	8	25.856	23.850	42565	12	0.624	4.494	42639	40	11.132	8.680
42362	9	13.932	20.785	42436	14	2.442	24.174	42566	28	6.323	4.120	42640	20	11.636	8.646
42363	8	15.228	20.966	42437	32	3.004	24.044	42567	33	7.983	4.944	42641	11	11.868	8.750
42364	25	16.604	20.532	42438	21	7.413	24.734	42568	16	8.475	4.262	42642	16	12.326	8.790
42365	16	16.808	20.056	42439	10	8.842	24.070	42569	13	10.162	4.332	42643	8	12.394	8.364
42366	20	17.726	20.726	42440	8	9.482	24.384	42570	8	10.354	4.706	42644	12	13.910	8.775
42367	10	18.189	20.552	42441	13	10.850	24.405	42571	8	12.458	4.138	42645	9	15.548	8.600
42368	12	21.754	20.775	42442	20	11.731	24.455	42572	26	13.264	4.192	42646	8	15.842	8.870
42369	20	25.851	20.252	42443	16	12.335	24.056	42573	24	13.684	4.930	42647	11	15.916	8.426
42370	20	1.396	21.864	42444	8	13.275	24.927	42574	20	13.770	4.254	42648	11	17.361	8.136
42371	25	1.622	21.186	42445	10	13.835	24.609	42575	8	17.225	4.592	42649	13	19.894	8.564
42372	12	3.331	21.886	42446	11	14.092	24.091	42576	45	17.430	4.240	42650	8	20.497	8.760
42373	24	3.718	21.930	42447	25	15.314	24.736	42577	10	18.535	4.275	42651	38	21.384	8.844
42374	20	4.085	21.675	42448	29	16.585	24.346	42578	40	22.046	4.626	42652	17	22.601	8.427
42375	11	4.824	21.532	42449	20	19.756	24.300	42579	9	22.832	4.898	42653	23	22.976	8.808
42376	10	5.295	21.160	42450	12	22.435	24.744	42580	12	24.168	4.646	42654	11	23.006	8.314
42377	26	6.050	21.152	42451	10	22.837	24.896	42581	24	24.777	4.716	42655	19	24.210	8.792
42378	8	6.834	21.166	42452	9	22.859	24.820	42582	13	0.303	5.508	42656	24	24.322	8.950
42379	20	7.430	21.552	42453	8	24.364	24.584	42583	8	1.460	5.404	42657	10	24.740	8.637
42380	11	10.704	21.094	42454	20	1.396	25.322	42584	21	5.266	5.246	42658	52	24.845	8.006
42381	8	12.475	21.454	42455	17	2.285	25.872	42585	14	5.279	5.074	42659	27	0.482	9.310
42382	11	12.536	21.984	42456	25	5.422	25.175	42586	15	12.206	5.872	42660	16	2.523	9.932
42383	10	13.435	21.118	42457	21	5.804	25.890	42587	70	12.886	5.794	42661	12	5.649	9.462
42384	16	13.742	21.010	42458	20	6.980	25.572	42588	17	13.956	5.973	42662	13	7.713	9.728
42385	32	14.034	21.894	42459	8	10.015	25.202	42589	8	14.217	5.282	42663	10	8.100	9.221
42386	36	14.380	21.377	42460	13	10.085	25.185	42590	16	15.658	5.650	42664	82	9.906	9.096
42387	16	16.864	21.650	42461	15	10.306	25.516	42591	10	18.549	5.995	42665	12	11.742	9.535
42388	24	17.105	21.353	42462	8	10.645	25.135	42592	19	21.596	5.423	42666	19	12.556	9.176
42389	23	17.477	21.631	42463	11	11.952	25.779	42593	12	22.661	5.072	42667	30	12.982	9.344
42390	10	17.815	21.541	42464	12	12.419	25.254	42594	35	23.090	5.448	42668	14	13.210	9.538
42391	14	18.538	21.768	42465	17	12.702	25.164	42595	13	23.389	5.288	42669	8	14.054	9.314
42392	11	18.804	21.515	42466	18	13.418	25.647	42596	35	25.955	5.382	42670	10	14.284	9.691
42393	21	19.286	21.624	42467	14	13.558	25.083	42597	19	0.498	6.774	42671	8	14.654	9.766
42394	20	19.722	21.868	42468	47	13.686	25.164	42598	10	0.737	6.825	42672	16	15.662	9.032
42395	10	21.415	21.901	42469	22	15.096	25.694	42599	9	2.136	6.723	42673	18	15.765	9.840
42396	9	21.840	21.528	42470	8	15.818	25.162	42600	20	6.119	6.372	42674	18	15.821	9.850
42397	10	22.384	21.815	42471	8	16.192	25.878	42601	14	6.458	6.888	42675	45	16.641	9.770
42398	10	1.468	22.304	42472	8	17.750	25.899	42602	22	8.060	6.940	42676	20	17.352	9.520
42399	9	7.368	22.863	42473	49	19.256	25.741	42603	8	8.402	6.044	42677	8	17.488	9.306
42400	9	7.888	22.648	42474	14	19.345	25.793	42604	10	9.466	6.372	42678	15	18.472	9.081
42401	16	9.063	22.464	42475	10	19.810	25.594	42605	14	10.538	6.908	42679	28	18.619	9.839
42402	14	13.419	22.749	42476	23	21.131	25.413	42606	39	15.528	6.567	42680	41	21.614	9.959
42403	10	13.726	22.306	42477	10	23.936	25.078	42607	14	15.566	6.663	42681	8	24.800	9.170
42404	12	14.134	22.136	42478	20	25.081	25.646	42608	30	16.401	6.112	42682	18	24.922	9.046
42405	30	14.424	22.478	42479	8	25.695	25.327	42609	12	19.330	6.787	42683	9	0.286	10.606
42406	8	14.813	22.675					42610	11	19.805	6.866	42684	15	1.761	10.942
42407	30	15.234	22.316					42611	13	20.654	6.268	42685	80	5.400	10.550
42408	10	16.417	22.842					42612	14	21.178	6.408	42686	12	7.013	10.343
42409	8	16.515	22.986					42613	56	21.322	6.115	42687	10	9.047	10.500
42410	10	16.636	22.865					42614	27	22.708	6.420	42688	8	9.624	10.988
42411	11	17.466	22.054					42615	32	25.940	6.667	42689	18	11.780	10.420
42412	8	17.500	22.645					42616	11	9.328	7.800	42690	10	12.316	10.501
42413	9	17.508	22.506					42617	40	9.482	7.878	42691	8	13.644	10.884
42414	10	17.975	22.988					42618	16	11.204	7.040	42692	14	14.808	10.780
42415	8	18.538	22.343					42619	20	12.490	7.372	42693	12	15.910	10.037
42416	8	18.624	22.448					42620	14	16.184	7.879	42694	34	17.418	10.678
42417	8	19.308	22.203					42621	11	17.097	7.563	42695	27	17.715	10.528
42418	8	23.612	22.936					42622	33	17.655	7.544	42696	32	18.121	10.782
42419	15	25.806	22.066					42623	14	18.311	7.582	42697	8	19.738	10.816
42420	8	3.255	23.798					42624	14	20.987	7.416	42698	11	20.110	10.954
42421	10	6.317	23.776					42625	9	21.501	7.638	42699	22	21.028	10.416
42422	13	7.465	23.586					42626	11	24.462	7.151	42700	21	24.025	10.789
42423	10	8.060	23.132					42627	8	24.784	7.493	42701	20	25.948	10.097
42424	10	8.413	23.804					42628	21	24.954	7.976	42702	8	1.926	11.222
42425	16	11.964	23.894					42629	20	25.434	7.660	42703	10	4.662	11.578

R.A. 15<sup>h</sup> 32<sup>m</sup>

Plate 646; 1916 Mar. 9.

Provisional Constants.

$$\begin{matrix} A & B & C \\ -0.2555 & +0.0532 & +1.541 \end{matrix}$$

$$\begin{matrix} D & E & F \\ -0.0539 & -0.2606 & +2.008 \end{matrix}$$

Mag. = 17.6 - 1.09√d

No.	d	x	y
42500	20	1.107	0.854
42501	23	1.404	0.960
42502	11	2.039	0.229
42503	15	2.268	0.290
42504	19	4.946	0.562
42505	11	12.829	0.640
42506	12	13.538	0.130
42507	8	17.218	0.140
42508	16	20.915	0.100
42509	42	22.112	0.322
42510	12	22.573	0.307
42511	37	23.874	0.066
42512	36	24.192	0.050
42513	15	0.350	1.293
42514	10	0.783	1.578
42515	16	1.784	1.762
42516	10	2.207	1.730
42517*	51	3.554	1.678
42518	11	4.066	1.682
42519	8	12.816	1.256
42520	9	16.548	1.854
42521	19	18.284	1.426
42522	9	20.476	1.043
42523	9	20.944	1.276
42524	9	22.886	1.803
42525	11	23.222	1.842
42526	44	24.426	1.438
42527	20	25.656	1.958
42528	44	25.733	1.786
42529	40	3.525	2.935
42530	9	6.456	2.849
42531	8	7.169	2.831
42532	8	10.504	2.314
42533	31	11.255	2.718
42534	41	12.321	2.577
42535	17	13.302	2.758
42536	8	15.768	2.461
42537	28	16.130	2.598
42538	8	16.816	2.499
42539	15	20.763	2.569
42540	12	20.992	2.765
42541	8	22.166	2.726
42542	23	22.394	2.228
42543	14	22.788	2.319
42544	8	25.338	2.313
42545	14	1.234	3.573
42546	16	1.702	3.771
42547	14	1.899	3.988
42548	16	8.398	3.695
42549	11	10.372	3.882
42550	8	11.540	3.986
42551	15	13.284	3.318
42552	43	14.235	3.547
42553	26	14.284	3.620
42554	33	14.474	3.732
42555	10	15.057	3.380



42704	13	6.349	11.039	42778	12	3.316	15.496	42852	41	16.116	18.670	42926	38	21.319	21.145	43000	8	14.967	25.286
42705*	53	11.624	11.761	42779	28	4.110	15.913	42853	35	16.214	18.194	42927	20	21.860	21.518	43001	68	15.170	25.896
42706	17	12.646	11.784	42780	28	4.142	15.718	42854	30	17.622	18.102	42928	31	24.300	21.671	43002	17	17.024	25.782
42707	8	13.561	11.046	42781	12	4.270	15.065	42855	18	19.574	18.442	42929	20	25.844	21.804				
42708	8	13.816	11.422	42782	20	5.026	15.305	42856	45	20.353	18.599	42930	10	0.126	22.389				
42709	8	14.511	11.914	42783	13	5.520	15.742	42857	29	21.861	18.143	42931	27	3.552	22.605				
42710	11	16.812	11.681	42784	11	5.778	15.814	42858	31	21.936	18.522	42932	8	3.874	22.850				
42711	9	16.990	11.804	42785*	50	6.917	15.637	42859	16	22.130	18.484	42933	12	5.564	22.915				
42712	23	19.162	11.228	42786	14	7.264	15.737	42860	8	22.626	18.508	42934	16	6.666	22.608				
42713	13	20.472	11.594	42787	22	9.732	15.684	42861	18	23.316	18.744	42935	15	7.076	22.720				
42714	10	22.058	11.372	42788	20	9.741	15.678	42862	20	1.882	19.096	42936	19	8.546	22.963				
42715	9	22.994	11.266	42789	32	10.046	15.718	42863	23	2.466	19.244	42937	41	10.284	22.702				
42716	28	23.752	11.991	42790	10	10.107	15.080	42864	15	2.797	19.858	42938	42	12.371	22.606				
42717	10	23.807	11.272	42791	20	10.944	15.689	42865	14	5.097	19.300	42939	14	12.463	22.986				
42718	22	25.964	11.354	42792	16	14.518	15.466	42866	13	5.884	19.158	42940	16	13.356	22.721				
42719	21	2.590	12.552	42793	8	14.538	15.356	42867	26	7.022	19.016	42941	30	14.594	22.256				
42720	14	5.848	12.738	42794*	45	14.558	15.494	42868	24	8.590	19.740	42942	22	14.806	22.182				
42721	10	6.126	12.797	42795	20	14.762	15.281	42869	10	9.500	19.646	42943	23	14.825	22.692				
42722	29	11.158	12.308	42796	23	15.174	15.770	42870	35	13.038	19.600	42944	10	16.750	22.810				
42723	10	11.452	12.892	42797	14	18.946	15.586	42871	21	13.247	19.420	42945	8	21.088	22.436				
42724	18	11.651	12.872	42798	12	19.222	15.786	42872	11	13.714	19.168	42946	8	22.396	22.346				
42725	25	11.836	12.220	42799	44	20.217	15.082	42873	11	17.064	19.013	42947	8	23.607	22.098				
42726	14	12.276	12.580	42800	14	23.200	15.852	42874	19	18.296	19.674	42948	12	24.286	22.698				
42727	19	12.646	12.492	42801	20	25.416	15.911	42875	8	19.642	19.950	42949	8	1.366	23.494				
42728	21	13.835	12.380	42802	8	1.404	16.996	42876	21	19.888	19.130	42950	23	1.628	23.881				
42729	9	15.026	12.684	42803	15	5.433	16.196	42877	10	20.034	19.576	42951	9	4.853	23.131				
42730	12	15.326	12.268	42804	8	5.565	16.330	42878	10	22.629	19.328	42952	17	5.160	23.420				
42731	19	15.653	12.634	42805	15	5.592	16.820	42879	17	23.096	19.896	42953	19	7.535	23.860				
42732	16	18.964	12.541	42806	10	6.272	16.398	42880	25	23.794	19.044	42954	8	10.261	23.648				
42733	9	19.114	12.212	42807	9	8.828	16.662	42881	11	25.428	19.290	42955	23	10.979	23.128				
42734	14	20.633	12.393	42808	17	9.762	16.898	42882	10	25.989	19.434	42956	18	12.160	23.600				
42735	11	21.060	12.083	42809	19	9.877	16.263	42883	19	1.503	20.534	42957	34	12.534	23.940				
42736	33	21.408	12.458	42810	8	12.058	16.484	42884	16	3.520	20.178	42958	11	12.658	23.448				
42737*	56	21.855	12.476	42811	8	13.282	16.412	42885	31	3.578	20.792	42959	8	12.778	23.856				
42738	20	22.142	12.040	42812	11	14.866	16.398	42886	16	4.342	20.231	42960	8	14.325	23.858				
42739	26	24.370	12.834	42813*	82	15.716	16.721	42887	40	5.714	20.596	42961	31	17.380	23.136				
42740	10	1.718	13.168	42814	12	16.202	16.364	42888	10	7.312	20.384	42962	9	17.926	23.294				
42741	28	3.230	13.886	42815	14	16.655	16.350	42889	12	8.374	20.580	42963	16	18.974	23.628				
42742	8	4.866	13.242	42816	30	17.339	16.536	42890	26	8.396	20.574	42964*	47	20.383	23.292				
42743*	52	6.738	13.700	42817	20	18.716	16.686	42891	12	8.446	20.345	42965	8	20.899	23.604				
42744	8	7.714	13.615	42818	14	19.574	16.949	42892	15	9.240	20.468	42966	29	21.641	23.094				
42745	13	11.824	13.840	42819	8	23.198	16.292	42893	25	9.466	20.969	42967	17	22.890	23.700				
42746	30	13.198	13.696	42820	16	0.132	17.422	42894	12	10.372	20.982	42968	9	23.162	23.556				
42747	18	13.554	13.820	42821	11	3.362	17.926	42895	20	12.541	20.991	42969	8	0.074	24.736				
42748	14	13.776	13.751	42822	16	3.516	17.844	42896	24	13.362	20.352	42970	16	1.088	24.325				
42749	14	14.110	13.917	42823*	81	3.886	17.101	42897	44	15.860	20.710	42971	8	3.620	24.389				
42750	8	16.076	13.750	42824	12	4.091	17.089	42898	11	16.364	20.304	42972	17	4.338	24.024				
42751	12	17.967	13.722	42825*	44	9.601	17.070	42899	10	17.248	20.698	42973	13	4.920	24.482				
42752	36	19.380	13.432	42826	20	9.774	17.040	42900	20	18.167	20.518	42974	9	4.934	24.492				
42753	8	20.122	13.652	42827	14	9.785	17.924	42901	8	20.518	20.951	42975	13	7.965	24.420				
42754	35	21.606	13.564	42828	8	11.130	17.828	42902	19	21.986	20.232	42976	10	8.206	24.016				
42755	17	24.755	13.034	42829	8	11.788	17.938	42903	9	22.917	20.504	42977	16	8.440	24.609				
42756	14	25.074	13.435	42830	21	12.800	17.593	42904	17	24.272	20.344	42978	14	9.414	24.556				
42757	44	25.446	13.406	42831	8	12.964	17.754	42905	23	24.889	20.606	42979	8	10.340	24.301				
42758*	60	2.572	14.324	42832	20	15.438	17.545	42906	8	3.746	21.860	42980*	65	11.598	24.556				
42759	14	5.009	14.004	42833	42	16.326	17.646	42907	34	4.365	21.620	42981	25	14.160	24.688				
42760	10	6.684	14.111	42834	14	17.274	17.231	42908	20	5.658	21.266	42982	22	14.709	24.730				
42761	31	6.995	14.620	42835	10	21.827	17.970	42909	8	7.065	21.660	42983	20	16.838	24.560				
42762	10	7.901	14.180	42836	21	22.046	17.136	42910	21	7.417	21.708	42984	38	17.941	24.168				
42763	13	14.308	14.220	42837	38	22.524	17.474	42911	20	7.696	21.984	42985*	47	17.952	24.298				
42764	15	14.446	14.256	42838	37	22.825	17.037	42912	14	8.048	21.257	42986*	44	17.973	24.666				
42765	8	15.192	14.051	42839	21	23.739	17.534	42913	40	11.146	21.262	42987	39	20.419	24.173				
42766	12	15.220	14.560	42840	12	24.415	17.256	42914	8	11.322	21.439	42988	21	20.834	24.068				
42767	22	15.572	14.850	42841	11	24.866	17.160	42915*	60	11.562	21.050	42989	31	23.305	24.290				
42768	13	15.668	14.275	42842	9	25.071	17.356	42916	16	14.148	21.970	42990	11	23.390	24.720				
42769	12	17.406	14.220	42843	24	25.392	17.546	42917	15	14.500	21.024	42991	18	0.207	25.316				
42770	21	17.452	14.566	42844	45	3.916	18.811	42918	8	14.729	21.580	42992	12	0.612	25.466				
42771	14	18.140	14.100	42845	14	4.106	18.993	42919	22	14.919	21.080	42993	12	1.712	25.637				
42772	13	21.523	14.974	42846	12	5.934	18.640	42920	20	15.157	21.362	42994	12	2.134	25.136				
42773	8	23.39																	



43096	20	16.760	2.264	43170	11	14.476	6.672	43244	8	13.594	10.997	43318	23	18.759	14.826	43392	12	20.503	18.918
43097	8	18.127	2.669	43171	8	15.736	6.696	43245	10	15.458	10.800	43319	21	19.284	14.686	43393	24	23.645	18.445
43098	10	19.066	2.072	43172	8	17.124	6.352	43246	20	17.637	10.376	43320	8	23.510	14.773	43394	16	24.121	18.796
43099	10	19.714	2.985	43173	13	17.887	6.006	43247	10	18.015	10.308	43321	10	0.920	15.584	43395	8	25.022	18.965
43100	8	22.556	2.199	43174	12	19.535	6.876	43248	9	23.164	10.163	43322	13	3.136	15.615	43396	21	25.856	18.366
43101	9	23.666	2.140	43175	9	20.593	6.780	43249	10	23.805	10.682	43323	10	5.237	15.551	43397	8	0.398	19.068
43102	8	24.624	2.760	43176	14	20.957	6.192	43250	8	25.275	10.973	43324	10	5.585	15.393	43398	11	0.866	19.629
43103	11	1.780	3.252	43177	8	24.470	6.765	43251	22	1.424	11.716	43325	9	12.920	15.190	43399	8	3.756	19.132
43104	26	3.906	3.309	43178	8	2.400	7.204	43252	18	3.629	11.050	43326	8	13.982	15.323	43400	21	5.746	19.598
43105	8	4.015	3.376	43179	40	2.465	7.716	43253	15	4.383	11.285	43327	10	14.278	15.486	43401	40	7.654	19.786
43106	11	4.171	3.171	43180	14	2.577	7.685	43254	8	5.992	11.041	43328	10	16.166	15.384	43402	8	7.925	19.324
43107	8	5.365	3.260	43181	12	3.054	7.364	43255	12	6.867	11.400	43329	14	17.074	15.211	43403	8	8.652	19.776
43108	13	5.455	3.202	43182	11	5.386	7.224	43256	10	8.436	11.416	43330	10	17.235	15.418	43404	10	9.746	19.742
43109	10	8.523	3.781	43183	10	5.614	7.950	43257	12	12.016	11.151	43331	24	17.636	15.314	43405	9	14.350	19.814
43110	12	8.898	3.092	43184	10	5.848	7.140	43258	10	20.255	11.009	43332	9	19.644	15.148	43406	8	16.820	19.548
43111	16	9.426	3.216	43185	12	7.010	7.530	43259	8	22.120	11.714	43333	13	19.698	15.664	43407	10	17.054	19.255
43112	25	9.888	3.436	43186	8	7.346	7.511	43260	8	23.411	11.409	43334	12	19.960	15.148	43408	8	18.130	19.835
43113	8	10.662	3.726	43187	10	7.602	7.002	43261	8	24.842	11.183	43335	18	22.485	15.876	43409	10	19.116	19.936
43114	8	10.790	3.510	43188	8	7.972	7.006	43262	12	24.947	11.923	43336	8	23.650	15.824	43410	8	19.792	19.812
43115	9	11.375	3.810	43189*	62	8.087	7.176	43263	12	25.383	11.730	43337	8	24.928	15.107	43411	11	20.352	19.342
43116	9	11.924	3.588	43190	14	9.656	7.775	43264	8	0.864	12.037	43338	38	25.942	15.242	43412	24	20.932	19.224
43117	9	13.153	3.573	43191	9	14.815	7.438	43265	15	2.053	12.550	43339	29	0.558	16.774	43413	12	21.702	19.376
43118	40	16.299	3.896	43192	11	15.370	7.436	43266	10	2.444	12.746	43340	8	0.925	16.025	43414	11	22.634	19.326
43119	10	20.985	3.650	43193	12	16.855	7.746	43267	10	4.184	12.126	43341	8	2.152	16.972	43415	9	23.360	19.434
43120	8	21.157	3.347	43194	10	17.250	7.326	43268	21	5.738	12.368	43342	8	2.605	16.868	43416*	82	24.577	19.296
43121	10	0.251	4.812	43195	22	17.195	7.443	43269	20	6.607	12.454	43343*	30	5.659	16.866	43417	8	24.625	19.500
43122	8	0.418	4.636	43196	12	20.135	7.426	43270	8	6.916	12.562	43344	23	7.805	16.890	43418	13	25.599	19.233
43123	10	1.754	4.366	43197	16	21.698	7.735	43271	8	7.171	12.101	43345	8	7.950	16.118	43419	10	2.050	20.064
43124	20	2.362	4.425	43198	11	22.129	7.062	43272	10	8.113	12.495	43346*	36	10.635	16.904	43420	14	2.672	20.316
43125	12	4.356	4.141	43199	8	22.356	7.823	43273	10	8.225	12.056	43347	10	10.789	16.644	43421	8	3.185	20.426
43126	12	4.575	4.126	43200	8	23.815	7.220	43274	20	9.102	12.628	43348	10	12.747	16.246	43422	8	3.289	20.484
43127	15	5.198	4.613	43201	22	24.250	7.465	43275	11	9.347	12.762	43349	20	15.376	16.215	43423	30	4.876	20.933
43128	8	5.633	4.436	43202	11	0.230	8.164	43276	28	11.427	12.407	43350	8	15.415	16.877	43424	8	6.960	20.512
43129	8	6.528	4.136	43203	17	0.609	8.544	43277	12	12.631	12.046	43351	8	16.104	16.714	43425	8	7.536	20.538
43130	9	6.675	4.406	43204	8	0.634	8.048	43278	11	13.916	12.913	43352	10	16.532	16.035	43426	8	8.815	20.902
43131	34	6.917	4.892	43205	13	1.843	8.513	43279	8	14.492	12.285	43353	9	16.706	16.894	43427	8	9.836	20.281
43132	9	9.374	4.196	43206	13	1.956	8.668	43280	8	14.555	12.918	43354	10	16.850	16.944	43428	8	13.032	20.718
43133	12	11.338	4.100	43207	10	2.373	8.348	43281	9	17.401	12.150	43355	20	18.932	16.742	43429	9	13.394	21.358
43134	11	13.008	4.564	43208	10	2.440	8.880	43282	12	17.537	12.066	43356	8	21.044	16.491	43430	9	15.274	20.800
43135	11	15.210	4.515	43209	10	2.558	8.754	43283	12	20.298	12.074	43357	10	22.894	16.673	43431	8	16.654	20.408
43136	9	18.396	4.142	43210	8	4.104	8.208	43284	14	21.237	12.466	43358	27	0.263	17.214	43432	13	17.022	20.123
43137	9	19.340	4.874	43211	31	4.368	8.422	43285	8	21.759	12.852	43359	12	1.480	17.258	43433	32	17.256	20.735
43138	15	19.446	4.618	43212	26	7.864	8.084	43286	10	23.586	12.635	43360	9	2.814	17.064	43434	8	19.636	20.209
43139	23	19.632	4.970	43213	20	8.136	8.841	43287	10	24.124	12.355	43361	14	3.134	17.250	43435	9	21.072	20.396
43140*	40	19.935	4.030	43214	14	11.080	8.608	43288	15	24.490	12.728	43362	10	6.521	17.136	43436	35	21.748	20.706
43141	10	21.324	4.185	43215	13	11.280	8.925	43289	9	24.708	12.396	43363	12	6.586	17.398	43437	8	22.712	20.595
43142	22	21.692	4.774	43216*	71	13.386	8.121	43290	12	24.878	12.413	43364	10	8.015	17.044	43438	8	23.748	20.200
43143	10	22.230	4.172	43217	20	16.514	8.517	43291	10	25.390	12.365	43365	8	15.472	17.021	43439	8	24.100	20.510
43144	10	23.956	4.775	43218	14	16.700	8.065	43292	20	1.499	13.876	43366	13	17.809	17.462	43440	8	1.406	21.826
43145	8	24.038	4.844	43219	8	18.766	8.045	43293	8	2.765	13.144	43367*	40	19.580	17.789	43441	24	2.091	21.390
43146	9	24.954	4.870	43220	15	19.179	8.043	43294*	43	3.132	13.110	43368	20	20.206	17.353	43442	14	3.642	21.504
43147	29	0.682	5.178	43221	11	21.706	8.594	43295	26	3.365	13.802	43369	12	20.261	17.438	43443	20	6.488	21.308
43148	10	0.981	5.015	43222	8	22.302	8.676	43296	18	3.995	13.958	43370	9	21.856	17.728	43444	8	6.948	21.640
43149	31	3.544	5.080	43223	8	24.576	8.468	43297	17	5.359	13.948	43371	8	21.897	17.938	43445	15	8.645	21.452
43150	12	4.302	5.831	43224	11	3.598	9.794	43298	22	5.628	13.771	43372	16	23.413	17.006	43446	18	14.045	21.066
43151	8	6.400	5.055	43225	10	5.710	9.799	43299	11	6.158	13.934	43373	8	24.446	17.394	43447*	60	17.516	21.466
43152	9	6.706	5.460	43226	10	5.888	9.115	43300	10	7.584	13.634	43374	11	1.074	18.476	43448	8	21.115	21.818
43153*	45	10.944	5.398	43227	13	7.955	9.244	43301	9	8.146	13.849	43375	13	1.554	18.767	43449	8	22.935	21.608
43154	8	12.103	5.734	43228	17	9.275	9.290	43302	8	11.112	13.045	43376	9	3.194	18.994	43450	8	0.197	22.086
43155	18	13.579	5.198	43229	18	9.311	9.254	43303	12	12.732	13.996	43377	13	4.795	18.604	43451	10	2.096	22.417
43156	13	14.694	5.993	43230	12	12.810	9.529	43304	11	15.324	13.778	43378	8	5.639	18.385	43452	8	3.808	22.200
43157	8	17.644	5.718	43231*	60	16.250	9.980	43305	8	22.960	13.091	43379	8	6.068	18.326	43453	18	5.484	22.748
43158	8	17.881	5.930	43232	9	16.878	9.078	43306	26	23.274	13.356	43380	10	6.184	18.256	43454	9	6.859	22.114
43159	10</																		



43466	20	16.993	22.434	43540	8	9.860	25.093	43635	13	6.356	3.365	43709	15	1.716	9.830	43783	9	15.735	13.630
43467	8	17.270	22.448	43541	36	10.081	25.816	43636	16	7.881	3.886	43710	15	2.105	9.218	43784	21	16.138	13.688
43468	20	18.808	22.013	43542	8	10.388	25.432	43637	41	11.344	3.851	43711	8	3.720	9.524	43785	15	17.580	13.720
43469	8	18.949	22.680	43543	14	11.150	25.433	43638	8	11.500	3.919	43712	21	8.356	9.388	43786	14	19.752	13.915
43470	12	19.343	22.674	43544	8	11.352	25.625	43639	20	15.248	3.612	43713	8	8.374	9.098	43787	23	21.197	13.660
43471	8	22.128	22.896	43545	37	11.754	25.952	43640	8	17.167	3.734	43714	13	10.174	9.486	43788	10	23.715	13.724
43472	11	22.290	22.135	43546	12	15.170	25.940	43641	9	19.396	3.021	43715	12	13.734	9.336	43789	8	24.315	13.455
43473	8	22.540	22.094	43547	8	17.045	25.450	43642	8	19.474	3.973	43716	14	15.460	9.754	43790	16	25.510	13.568
43474	10	23.150	22.806	43548	43	17.094	25.926	43643	11	21.175	3.323	43717	14	15.767	9.682	43791	50	25.900	13.678
43475	8	23.241	22.030	43549	10	18.747	25.351	43644	28	22.494	3.843	43718	16	16.012	9.374	43792	8	5.507	14.834
43476	10	24.492	22.325	43550	8	20.094	25.652	43645	8	0.961	4.533	43719	8	24.348	9.099	43793	25	6.316	14.640
43477*	68	25.069	22.110	43551	45	20.353	25.550	43646	11	1.526	4.965	43720	8	0.776	10.359	43794	31	6.494	14.524
43478	11	0.711	23.435	43552	22	21.082	26.740	43647	8	3.686	4.398	43721	10	1.426	10.872	43795	9	6.992	14.184
43479	8	0.979	23.289	43553	40	21.213	25.235	43648	10	4.898	4.011	43722	9	3.128	10.620	43796	28	7.180	14.716
43480	12	1.772	23.846					43649	8	11.552	4.538	43723	8	3.298	10.706	43797	8	7.648	14.488
43481	8	1.826	23.448					43650	9	13.082	4.894	43724	11	4.384	10.461	43798	9	12.576	14.194
43482	8	3.049	23.755					43651	14	15.451	4.053	43725	14	5.610	10.106	43799	14	13.444	14.842
43483	8	4.448	23.700					43652	10	17.796	4.418	43726	8	7.438	10.188	43800	17	19.312	14.487
43484	9	5.435	23.378					43653	29	25.546	4.352	43727	11	13.644	10.128	43801	18	25.326	14.555
43485	8	6.376	23.552					43654	9	1.610	5.034	43728	12	15.214	10.848	43802	8	2.582	15.288
43486	20	7.600	23.674					43655	8	2.526	5.054	43729	22	16.076	10.396	43803*	46	3.596	15.414
43487	9	10.155	23.350					43656	8	8.600	5.469	43730	8	19.015	10.378	43804*	55	3.894	15.670
43488	8	10.859	23.402					43657	24	8.683	5.338	43731	8	19.504	10.414	43805	24	4.586	15.166
43489	9	11.218	23.782					43658	20	10.243	5.466	43732*	68	24.892	10.025	43806	10	4.818	15.573
43490	10	11.594	23.425					43659	31	10.548	5.223	43733	8	1.037	11.602	43807	18	5.830	15.904
43491	10	12.191	23.981					43660	9	11.469	5.472	43734	9	2.464	11.366	43808	22	7.773	15.964
43492	9	12.672	23.894					43661	20	12.344	5.529	43735	8	2.625	11.786	43809	12	10.748	15.034
43493	9	12.790	23.646					43662*	120	13.290	5.802	43736	8	2.896	11.154	43810	12	11.342	15.454
43494	11	13.312	23.808					43663	17	15.926	5.790	43737	18	3.008	11.912	43811	15	11.984	15.903
43495	8	13.767	23.400					43664	17	17.124	5.256	43738	44	4.375	11.914	43812	10	12.651	15.234
43496	8	14.287	23.606					43665	8	17.702	5.553	43739	8	5.898	11.250	43813	9	17.034	15.199
43497	22	14.308	23.086					43666*	47	21.151	5.070	43740	8	6.733	11.475	43814	27	18.443	15.728
43498	8	15.879	23.920					43667	8	24.356	5.114	43741*	52	9.278	11.658	43815	9	18.606	15.582
43499	8	16.274	23.746					43668	20	4.092	6.132	43742	8	9.650	11.883	43816	21	18.819	15.304
43500	31	18.725	23.965					43669	8	4.821	6.376	43743	11	11.316	11.205	43817	17	19.152	15.348
43501	9	18.754	23.506					43670	8	11.101	6.597	43744	25	11.802	11.245	43818	10	20.840	15.038
43502	12	19.098	23.106					43671	27	12.264	6.216	43745	8	12.764	11.718	43819	18	21.405	15.223
43503	11	19.896	23.388					43672	9	13.035	6.456	43746	8	15.357	11.224	43820	8	22.382	15.679
43504	8	20.678	23.514					43673*	48	20.369	6.219	43747	9	16.685	11.010	43821	22	22.431	15.151
43505	12	20.815	23.134					43674*	60	21.266	6.924	43748	10	17.443	11.297	43822	8	22.714	15.313
43506	8	22.446	23.516					43675*	52	24.130	6.780	43749*	42	17.886	11.942	43823	8	24.026	15.533
43507	10	22.448	23.000					43676	8	24.900	6.867	43750	16	18.236	11.873	43824	24	0.149	16.080
43508	9	24.194	23.628					43677	14	25.134	6.702	43751	8	19.198	11.352	43825	11	0.563	16.870
43509	8	25.384	23.190					43678	26	25.256	6.558	43752	32	19.364	11.232	43826	8	3.828	16.702
43510	33	25.484	23.018					43679	31	1.840	7.653	43753	9	19.730	11.704	43827	8	6.026	16.228
43511	8	25.813	23.378					43680	15	5.390	7.410	43754	13	19.794	11.745	43828	8	6.462	16.492
43512	21	1.130	24.022					43681	13	10.528	7.320	43755	11	23.253	11.283	43829	8	7.488	16.242
43513	9	1.226	24.452					43682	23	10.780	7.358	43756	10	1.224	12.828	43830	8	11.203	16.320
43514	9	5.456	24.184					43683	8	14.600	7.728	43757	12	1.757	12.545	43831	10	11.477	16.400
43515	36	5.920	24.465					43684	8	15.238	7.920	43758	20	2.126	12.914	43832	13	12.086	16.096
43516	13	7.006	24.469					43685	23	16.926	7.927	43759	13	2.514	12.596	43833	28	14.278	16.186
43517	30	8.378	24.924					43686	10	23.112	7.561	43760	18	2.580	12.106	43834	25	17.421	16.714
43518	11	8.928	24.281					43687	38	24.098	7.356	43761	13	3.024	12.544	43835	16	20.508	16.536
43519	8	12.207	24.200					43688	20	25.994	7.336	43762	9	6.547	12.790	43836	32	20.755	16.516
43520	12	12.914	24.066					43689	8	2.178	8.654	43763	20	11.340	12.758	43837	32	22.916	16.270
43521	13	13.966	24.845					43690	27	5.281	8.776	43764	10	11.392	12.256	43838	11	24.738	16.398
43522	13	14.582	24.500					43691	8	5.554	8.312	43765	8	11.881	12.146	43839	18	1.085	17.201
43523	8	14.596	24.644					43692*	45	5.604	8.931	43766	8	13.100	12.576	43840	42	4.085	17.407
43524	12	16.516	24.718					43693	20	6.106	8.014	43767	26	13.464	12.148	43841	14	6.997	17.494
43525	15	18.376	25.962					43694	8	6.114	8.790	43768	26	15.080	12.973	43842	18	14.048	17.274
43526	25	18.668	24.616					43695	8	6.640	8.795	43769	11	15.514	12.174	43843	25	15.250	17.248
43527	11	18.844	24.800					43696	18	7.250	8.728	43770	14	16.596	12.748	43844	19	18.526	17.800
43528	12	22.596	24.240					43697	8	9.655	8.354	43771	22	16.598	12.480	43845	10	18.846	17.233
43529	9	25.962	24.705					43698	9	13.246	8.974	43772	8	19.234	12.120	43846	13	21.627	17.616
43530	8	1.651	25.162					43699	8	13.922	8.920	43773	8	19.840	12.798	43847	10	22.130	17.158
43531	8	2.222	25.700					43700	11	15.052	8.030	43774	36	0.913	13.550	43848	34	1.328	18.636
43532	12	4.756	25.258					43701	10	15.059	8.211	43775*	54	3.948	13.004	43849	27	1.807	18.983
43533	12	6.824	25.326					43702	28	16.425	8.448	43776	8	7.714	13.466	43850	30	3.537	18.540
43534	9	7.478	25.262					43703	16	16.442	8.450								



43857	11	13.151	18.300	43931*	54	19.400	23.694	44012	18	10.449	1.612	44086	11	14.537	7.960	44160	9	11.996	11.456
43858	8	22.313	18.298	43932	9	20.808	23.408	44013	25	16.572	1.682	44087	12	16.158	7.510	44161	16	15.768	11.180
43859	12	22.964	18.553	43933	10	22.445	23.894	44014	17	21.125	1.908	44088	10	16.922	7.511	44162*	38	17.496	11.334
43860	8	0.328	19.526	43934	10	23.198	23.932	44015	8	21.300	1.769	44089	8	19.316	7.250	44163	16	19.446	11.406
43861	10	1.051	19.628	43935	10	0.332	24.440	44016	10	22.574	1.484	44090	17	19.372	7.158	44164	14	22.700	11.540
43862*	84	2.261	19.480	43936	11	3.705	24.879	44017	12	23.020	1.879	44091	8	19.616	7.154	44165	8	23.630	11.608
43863	8	2.318	19.683	43937	8	4.222	24.480	44018	12	23.695	1.869	44092	8	20.213	7.560	44166	8	25.308	11.134
43864	8	2.710	19.147	43938*	45	4.344	24.020	44019	32	0.006	2.479	44093*	40	21.274	7.946	44167	11	25.632	11.930
43865	25	3.288	19.406	43939	10	7.250	24.749	44020	9	1.890	2.075	44094	10	21.782	7.325	44168	8	5.485	12.622
43866	8	4.120	19.811	43940	17	9.580	24.660	44021	13	2.336	2.389	44095	8	24.120	7.292	44169*	58	6.114	12.707
43867	20	4.895	19.518	43941	14	12.982	24.604	44022	12	4.196	2.085	44096	11	25.508	7.886	44170	22	7.857	12.986
43868	30	5.384	19.946	43942	12	14.202	24.006	44023	19	7.998	2.356	44097	10	2.228	8.046	44171	11	9.438	12.356
43869	15	6.472	19.820	43943	8	16.700	24.062	44024	8	9.407	2.553	44098	40	3.245	8.570	44172	13	13.671	12.914
43870	11	6.982	19.780	43944	26	17.424	24.898	44025	11	9.507	2.878	44099	19	3.474	8.775	44173	15	14.204	12.740
43871	8	8.455	19.300	43945	8	18.376	24.812	44026	26	11.215	2.150	44100	10	4.384	8.945	44174	18	15.400	12.965
43872	17	8.556	19.980	43946	26	18.516	24.428	44027	35	11.756	2.580	44101	14	6.133	8.226	44175	8	16.050	12.232
43873	12	9.490	19.998	43947*	38	19.761	24.700	44028	16	15.276	2.236	44102	8	7.697	8.942	44176	16	18.304	12.763
43874	13	10.470	19.079	43948	19	20.165	24.876	44029	22	17.035	2.962	44103	16	8.594	8.405	44177	28	19.035	12.810
43875	20	12.127	19.607	43949	29	23.396	24.020	44030	19	17.503	2.747	44104	11	8.772	8.488	44178	25	25.514	12.856
43876	16	12.636	19.316	43950	31	7.272	25.077	44031*	54	18.003	2.305	44105	10	8.982	8.596	44179	18	3.064	13.920
43877	12	13.703	19.434	43951	27	8.944	25.264	44032	8	23.032	2.748	44106	34	10.052	8.458	44180	13	4.791	13.970
43878	23	17.641	19.566	43952	80	8.975	25.733	44033	9	23.846	2.953	44107	8	10.757	8.989	44181	15	5.140	13.750
43879	21	18.999	19.070	43953	11	10.740	23.306	44034	10	2.188	3.553	44108	13	10.895	8.228	44182	8	5.292	13.733
43880	8	19.252	19.839	43954	8	11.206	25.705	44035	8	3.482	3.187	44109	17	13.774	8.978	44183	10	8.868	13.278
43881*	42	19.276	19.274	43955	8	13.225	25.848	44036	12	4.544	3.806	44110	14	16.789	8.216	44184	23	10.230	13.052
43882	8	21.796	19.005	43956	10	13.955	25.508	44037	25	5.364	3.401	44111	16	19.390	8.620	44185	9	19.656	13.618
43883	24	23.267	19.844	43957	8	15.035	25.346	44038	9	5.576	3.884	44112	8	21.821	8.524	44186	8	22.688	13.011
43884	8	0.412	20.794	43958	8	15.281	25.300	44039	21	8.716	3.454	44113	8	22.834	8.016	44187	9	22.968	13.560
43885	8	1.448	20.390	43959	32	16.132	25.270	44040*	115	9.107	3.752	44114	17	25.168	8.624	44188	16	22.990	13.378
43886	23	5.580	20.489	43960	8	17.730	25.663	44041	21	12.268	3.248	44115	11	1.434	9.280	44189	29	24.896	13.472
43887	13	5.912	20.194	43961	15	17.755	25.326	44042	15	22.900	3.719	44116	40	1.662	9.182	44190	11	1.267	14.109
43888	11	6.035	20.066	43962	10	17.818	25.927	44043	28	2.948	4.702	44117	8	1.825	9.468	44191	15	2.892	14.910
43889*	60	11.776	20.252	43963	8	17.898	25.388	44044	9	4.324	4.100	44118	8	3.204	9.535	44192*	50	3.448	14.024
43890	30	22.419	20.131	43964	8	18.278	25.767	44045	9	10.796	4.058	44119	22	4.677	9.853	44193	12	3.669	14.248
43891*	51	5.258	21.162	43965	11	21.894	25.038	44046	10	19.071	4.999	44120	8	7.494	9.980	44194*	37	4.520	14.680
43892	8	5.358	21.642	43966	23	22.099	25.202	44047	31	19.729	4.514	44121	14	9.884	9.373	44195	9	5.680	14.318
43893	26	5.522	21.714	43967	8	22.430	25.970	44048	39	22.270	4.986	44122	13	12.006	9.452	44196	25	7.078	14.818
43894	10	9.832	21.462					44049	9	22.720	4.410	44123	8	12.232	9.083	44197	9	15.924	14.224
43895	10	11.227	21.229					44050	13	23.122	4.830	44124	8	21.395	9.098	44198*	42	16.080	14.328
43896	10	15.604	21.589					44051	15	25.252	4.614	44125	9	15.502	9.040	44199	11	16.740	14.869
43897	9	18.574	21.762					44052	8	8.898	5.854	44126	8	19.484	9.696	44200	8	17.414	14.440
43898*	58	18.846	21.016					44053	15	9.113	5.910	44127	15	20.578	9.544	44201	10	17.900	14.296
43899	30	20.350	21.930					44054*	40	9.440	5.294	44128	15	20.780	9.492	44202	14	17.970	14.340
43900	8	20.596	21.609					44055	10	9.842	5.020	44129	21	21.322	9.991	44203	14	20.395	14.902
43901	19	22.562	21.148					44056	16	11.386	5.538	44130	12	21.966	9.428	44204	20	23.346	14.568
43902	15	24.906	21.639					44057	20	11.575	5.944	44131	20	22.068	9.545	44205	40	24.344	14.259
43903	12	0.005	22.338					44058	14	12.690	5.844	44132	15	22.276	9.639	44206	26	25.132	14.190
43904	8	0.956	22.222					44059	9	14.491	5.600	44133	14	22.500	9.326	44207	18	0.005	15.554
43905	10	2.209	22.507					44060	12	15.780	5.192	44134	23	23.962	9.055	44208	8	0.288	15.709
43906*	80	2.776	22.288					44061	8	17.230	5.276	44135	8	24.272	9.228	44209	36	4.386	15.655
43907	29	3.886	22.484					44062	13	24.748	5.512	44136	15	24.595	9.947	44210	8	4.724	15.274
43908	8	7.425	22.120					44063	26	2.694	6.913	44137	21	24.755	9.276	44211	15	5.391	15.293
43909	18	7.642	22.200					44064	13	3.500	6.997	44138*	74	2.376	10.388	44212	25	5.830	15.893
43910	21	7.917	22.882					44065	12	4.541	6.868	44139	14	3.850	10.120	44213*	47	10.065	15.167
43911	19	10.489	22.489					44066	29	5.793	6.534	44140	9	5.305	10.008	44214	16	10.390	15.014
43912	8	11.307	22.293					44067	9	6.612	6.931	44141	24	6.798	10.852	44215	8	13.068	15.625
43913	8	11.590	22.705					44068	10	12.842	6.318	44142	8	7.673	10.812	44216	31	16.684	15.884
43914	11	18.199	22.982					44069	26	15.360	6.320	44143	15	8.809	10.589	44217	15	18.386	15.772
43915	8	18.923	22.538					44070	11	15.370	6.580	44144	16	9.272	10.363	44218	10	20.348	15.850
43916	23	19.742	22.880					44071	11	20.786	6.768	44145	19	12.460	10.520	44219	19	22.242	15.850
43917	22	20.227	22.579					44072	23	21.000	6.090	44146	9	12.697	10.582	44220	14	24.819	15.750
43918	8	23.566	22.388					44073	25	21.172	6.633	44147	9	13.046	10.892	44221	28	0.506	16.662
43919	10	24.536	22.264					44074	33	24.556	6.752	44148	12	13.806	10.108	44222	12	2.335	16.762
43920	8	0.172	23.716					44075	12	0.566	7.952	44149	8	15.222	10.426	44223	14	7.382	16.487
43921	8	0.173	23.200					44076	38	1.544	7.730	44150	8	15.231	10.108	44224	16	9.138	16.324
43922	10	0.874	23.000					44077*	47	1.566	7.155	44151	31	18.480	10.490	44225	18	11.368	16.887
43923	42	3																	



44234	11	9.159	17.826	44308	10	14.444	22.523	44403	12	10.103	0.748	44477	21	8.542	5.915	44551	22	2.390	9.226
44235	8	9.778	17.564	44309	12	14.963	22.322	44404	8	10.723	0.374	44478	11	8.756	5.783	44552	8	3.682	9.526
44236	11	9.800	17.820	44310	10	16.140	22.953	44405	13	13.363	0.230	44479	11	8.926	5.168	44553	12	4.006	9.236
44237	37	9.844	17.013	44311	11	16.584	22.180	44406	16	17.247	0.716	44480	18	10.401	5.614	44554	34	4.306	9.386
44238	8	10.792	17.420	44312	8	18.117	22.743	44407	12	18.459	0.353	44481	8	11.976	5.366	44555	8	4.853	9.495
44239	15	11.066	17.308	44313	10	18.241	22.580	44408	8	19.999	0.666	44482	23	12.666	5.513	44556	12	6.844	9.445
44240	12	11.182	17.556	44314	8	20.164	22.046	44409	16	24.414	0.514	44483	16	14.896	5.346	44557	11	7.612	9.797
44241	13	11.223	17.574	44315	8	2.384	23.420	44410	36	25.828	0.206	44484	16	16.845	5.328	44558	15	9.328	9.295
44242	41	11.265	17.917	44316	10	2.618	23.980	44411	11	0.164	1.446	44485	12	18.061	5.398	44559	13	9.443	9.346
44243	12	11.409	17.060	44317	42	6.567	23.984	44412	14	0.608	1.839	44486	12	19.642	5.954	44560	12	9.522	9.214
44244	10	12.389	17.285	44318	8	8.648	23.174	44413	10	1.284	1.826	44487	40	19.828	5.486	44561	8	11.816	9.104
44245	8	13.902	17.903	44319	13	10.142	23.520	44414	11	5.282	1.376	44488	12	23.674	5.146	44562*	44	13.254	9.964
44246	8	14.680	17.720	44320	10	11.050	23.582	44415	17	6.516	1.618	44489	11	23.678	5.282	44563	8	14.166	9.858
44247	22	15.426	17.775	44321	17	11.664	23.644	44416	18	8.810	1.616	44490	8	25.646	5.402	44564	8	15.195	9.635
44248	10	17.472	17.664	44322	10	15.254	23.058	44417	21	11.666	1.585	44491	36	2.171	6.707	44565	21	15.400	9.055
44249	13	17.525	17.474	44323	13	15.442	23.416	44418	13	14.042	1.208	44492	11	5.595	6.224	44566	16	15.846	9.414
44250	24	24.310	17.978	44324*	26	15.462	23.013	44419	10	14.894	1.694	44493	36	7.526	6.955	44567	8	17.338	9.418
44251	12	0.594	18.947	44325	26	18.757	23.518	44420	11	16.836	1.443	44494	8	7.500	6.174	44568	10	19.668	9.347
44252*	63	3.725	18.103	44326	8	19.199	23.864	44421	38	18.146	1.388	44495	8	8.062	6.120	44569	46	24.354	9.484
44253	14	10.201	18.984	44327	8	20.643	23.119	44422	14	21.955	1.366	44496	36	9.300	6.224	44570	36	24.905	9.546
44254	9	12.977	18.614	44328	12	21.068	23.882	44423	10	24.019	1.284	44497	8	10.194	6.005	44571	8	24.907	9.482
44255	24	18.656	18.907	44329	30	25.380	23.834	44424*	48	24.388	1.206	44498	36	11.256	6.936	44572	15	25.667	9.349
44256	8	18.856	18.840	44330	8	25.885	23.796	44425	8	24.706	1.376	44499	14	11.814	6.645	44573	18	25.788	9.072
44257	17	19.068	18.105	44331	13	0.165	24.296	44426	10	24.900	1.896	44500	26	13.142	6.654	44574	19	25.995	9.380
44258	18	25.027	18.384	44332	15	0.918	24.322	44427	46	25.932	1.406	44501	8	14.205	6.244	44575	12	0.858	10.307
44259	27	25.112	18.404	44333	30	1.116	24.410	44428	8	0.624	2.715	44502	8	15.344	6.536	44576	8	3.554	10.691
44260	8	2.895	19.482	44334	8	2.462	24.217	44429	8	1.444	2.912	44503	8	19.215	6.709	44577	8	3.906	10.158
44261	21	5.432	19.116	44335	8	11.450	24.592	44430	8	4.368	2.527	44504*	42	19.336	6.982	44578	12	4.648	10.978
44262	8	7.042	19.224	44336*	52	17.292	24.150	44431	9	5.226	2.098	44505	32	21.166	6.404	44579	12	6.016	10.686
44263	10	8.776	19.806	44337	12	18.448	24.904	44432	12	6.322	2.738	44506	10	21.222	6.438	44580*	62	8.856	10.822
44264	8	13.211	19.618	44338	16	21.824	24.805	44433	20	8.225	2.043	44507	12	23.854	6.256	44581	8	9.642	10.266
44265*	54	15.290	19.396	44339	8	23.049	24.200	44434	12	13.452	2.327	44508	8	0.458	7.978	44582	11	10.728	10.299
44266*	34	15.620	19.756	44340	17	23.118	24.806	44435	15	16.706	2.823	44509	8	1.744	7.248	44583	13	11.767	10.324
44267	26	15.978	19.796	44341	13	23.274	24.812	44436	9	18.804	2.150	44510	11	3.136	7.833	44584	10	11.894	10.441
44268	12	18.341	19.822	44342	15	23.544	24.103	44437	18	19.374	2.960	44511	10	4.264	7.343	44585	8	12.448	10.105
44269	8	21.634	19.337	44343	8	0.160	25.570	44438	19	21.248	2.378	44512	8	6.624	7.353	44586	8	14.540	10.234
44270	8	23.784	19.680	44344	11	4.660	25.882	44439	9	24.526	2.416	44513	8	7.474	7.934	44587	9	17.182	10.856
44271	11	24.865	19.283	44345	11	5.558	25.532	44440	62	25.045	2.285	44514	10	8.344	7.112	44588	8	17.346	10.196
44272	17	25.142	19.197	44346	13	7.046	25.610	44441	9	25.354	2.697	44515	12	8.528	7.132	44589	8	17.891	10.306
44273	26	0.076	20.533	44347	25	7.398	25.452	44442	18	0.498	3.683	44516	8	9.674	7.635	44590	30	18.965	10.484
44274	20	0.917	20.234	44348	18	7.904	25.920	44443	9	3.844	3.255	44517	8	11.008	7.835	44591	31	19.029	10.885
44275	11	4.762	20.650	44349	13	8.416	25.903	44444*	36	4.424	3.936	44518	12	11.458	7.983	44592	8	19.688	10.687
44276	14	9.612	20.240	44350	14	13.218	25.469	44445	11	5.027	3.057	44519	9	11.772	7.772	44593	22	19.820	10.421
44277	8	15.254	20.642	44351	20	17.736	25.916	44446	11	5.054	3.275	44520	24	12.295	7.834	44594	13	20.612	10.934
44278	11	15.752	20.799	44352	8	19.583	25.479	44447*	50	7.216	3.580	44521	10	15.132	7.130	44595	32	20.986	10.682
44279	8	15.835	20.970	44353	37	20.780	25.580	44448	14	8.552	3.946	44522	9	15.356	7.876	44596	8	21.136	10.070
44280	8	16.103	20.578	44354	17	24.682	25.061	44449	8	9.832	3.425	44523	16	16.243	7.666	44597	8	21.674	10.588
44281	8	19.250	20.620	44355	8	24.792	25.203	44450	9	10.166	3.395	44524	17	16.646	7.674	44598	13	0.348	11.506
44282	20	19.474	20.028					44451	11	12.854	3.540	44525	9	17.152	7.634	44599	8	1.282	11.568
44283	8	21.199	20.830					44452	10	13.778	3.603	44526	17	18.633	7.664	44600	11	2.958	11.086
44284	8	24.934	20.004					44453	10	14.530	3.850	44527	8	20.064	7.760	44601	11	3.284	11.880
44285	20	0.236	21.548					44454	11	16.194	3.531	44528	11	20.095	7.744	44602	12	4.006	11.996
44286	8	1.134	21.788					44455	16	18.415	3.689	44529	36	21.214	7.212	44603	10	4.826	11.210
44287	8	5.600	21.936					44456	18	18.636	3.995	44530	8	22.844	7.805	44604	10	5.182	11.032
44288	14	6.432	21.617					44457	11	21.145	3.162	44531	9	23.064	7.789	44605	8	6.278	11.095
44289	16	10.385	21.878					44458	12	25.628	3.665	44532	8	24.674	7.626	44606*	80	12.266	11.424
44290	15	13.823	21.523					44459	60	25.644	3.921	44533	8	24.900	7.762	44607	8	15.936	11.124
44291	20	15.920	21.237					44460	9	0.325	4.376	44534	12	2.800	8.574	44608	13	15.948	11.325
44292	19	19.138	21.275					44461	12	0.728	4.792	44535	15	4.476	8.572	44609	8	16.286	11.176
44293	14	20.928	21.860					44462	16	2.859	4.565	44536	18	4.928	8.766	44610	8	17.112	11.877
44294	17	22.922	21.560					44463	12	3.816	4.796	44537*	88	5.482	8.581	44611	36	17.416	11.377
44295	8	22.928	21.722					44464	8	4.796	4.676	44538	8	6.435	8.094	44612	18	18.806	11.175
44296	15	23.812	21.661					44465	22	7.916	4.188	44539	8	9.044	8.698	44613	12	19.343	11.352
44297	16	24.330	21.444					44466	12	8.014	4.428	44540	12	10.344	8.174	44614	18	20.174	11.171
44298	8	1.259	22.770					44467	12	10.866	4.473	44541	8	11.578	8.818	44615	12	20.656	



44625	11	24.903	12.473	44699	14	2.722	18.334	44773	8	9.122	22.478	44906	18	12.135	2.895
44626	16	25.880	12.944	44700	26	2.806	18.354	44774	13	9.137	22.012	44907	22	12.894	2.230
44627	14	0.648	13.344	44701	8	4.152	18.524	44775	14	11.552	22.966	44908	20	13.735	2.917
44628	26	2.558	13.424	44702	8	4.705	18.622	44776	36	11.636	22.564	44909	8	14.972	2.732
44629	9	9.294	13.996	44703	12	5.562	18.468	44777	9	12.178	22.366	44910	15	17.458	2.081
44630	34	9.925	13.536	44704	9	6.401	18.636	44778	9	13.523	22.841	44911	10	20.124	2.209
44631	17	10.064	13.738	44705	8	8.432	18.716	44779	10	13.796	22.386	44912	8	21.660	2.136
44632	10	11.896	13.724	44706	8	10.474	18.370	44780	34	14.502	22.757	44913	8	0.176	3.727
44633*	56	11.957	13.336	44707	17	10.758	18.526	44781	8	14.592	22.274	44914	11	3.212	3.905
44634	9	12.772	13.670	44708	26	12.071	18.644	44782	8	14.842	22.661	44915	9	3.684	3.179
44635	15	12.875	13.838	44709	30	12.428	18.992	44783	14	15.792	22.896	44916	16	5.634	3.596
44636	8	13.042	13.094	44710	8	13.372	18.148	44784	8	15.621	22.586	44917	10	7.484	3.537
44637	14	13.912	13.497	44711	8	13.731	18.284	44785*	48	17.158	22.315	44918*	38	9.995	3.912
44638	26	13.932	13.386	44712	8	15.955	18.118	44786	12	18.571	22.318	44919	14	10.394	3.854
44639	8	14.586	13.366	44713	12	20.896	18.507	44787	14	22.604	22.376	44920	9	10.544	3.899
44640	19	15.832	13.245	44714	10	21.246	18.073	44788	15	22.668	22.330	44921	8	11.173	3.134
44641	14	16.714	13.213	44715	22	21.454	18.927	44789*	68	23.225	22.164	44922	11	12.290	3.516
44642	8	17.005	13.915	44716	12	22.218	18.916	44790	17	23.585	22.018	44923	10	12.871	3.427
44643	16	17.582	13.137	44717	14	22.284	18.126	44791	36	3.106	23.785	44924	8	13.930	3.913
44644	24	18.252	13.196	44718	19	23.556	18.158	44792	8	3.612	23.744	44925	10	14.582	3.699
44645	20	18.288	13.956	44719	10	25.328	18.804	44793	10	3.694	23.456	44926*	60	15.676	3.023
44646	18	18.362	13.683	44720	8	0.458	19.664	44794	14	4.175	23.656	44927*	49	18.386	3.534
44647	56	20.374	13.373	44721	12	2.562	19.234	44795*	80	8.401	23.759	44928	10	18.464	3.762
44648	18	1.012	14.530	44722	9	2.636	19.958	44796	24	10.513	23.077	44929	9	18.920	3.835
44649	8	1.819	14.635	44723	14	2.842	19.147	44797	34	12.812	23.664	44930	16	2.257	4.372
44650	40	2.006	14.214	44724	10	3.928	19.866	44798	10	16.615	23.495	44931*	48	3.225	4.164
44651	22	2.798	14.142	44725*	46	6.100	19.484	44799	20	18.104	23.236	44932	8	4.330	4.402
44652	9	3.796	14.744	44726	8	7.894	19.552	44800*	78	19.294	23.677	44933	9	4.556	4.144
44653	9	4.826	14.628	44727	17	10.392	19.018	44801	8	20.317	23.736	44934	8	4.856	4.518
44654	13	5.386	14.142	44728	18	11.148	19.176	44802*	56	25.025	23.304	44935	14	5.270	4.572
44655	8	12.234	14.877	44729	10	13.952	19.464	44803	11	25.427	23.208	44936	8	5.846	4.976
44656	16	13.278	14.726	44730	32	14.498	19.258	44804	8	0.784	24.164	44937	10	10.100	4.373
44657	8	14.100	14.154	44731	12	15.518	19.745	44805	16	0.852	24.770	44938	13	12.592	4.099
44658	16	17.330	14.394	44732	19	15.774	19.814	44806	11	1.006	24.776	44939	10	12.720	4.374
44659	28	17.644	14.894	44733	14	17.822	19.648	44807	14	1.275	24.065	44940	27	13.608	4.387
44660	9	18.372	14.145	44734	8	18.646	19.686	44808	8	2.192	24.707	44941	10	14.240	4.516
44661	8	19.502	14.682	44735	12	21.932	19.741	44809	44	3.758	24.705	44942	8	14.366	4.256
44662	15	22.256	14.856	44736	21	22.022	19.506	44810	28	4.185	24.698	44943	8	14.743	4.554
44663	11	23.972	14.736	44737	14	24.872	19.336	44811	9	4.212	24.680	44944	10	16.520	4.872
44664	10	25.254	14.966	44738	8	4.062	20.396	44812	14	5.288	24.394	44945	10	21.367	4.106
44665	56	25.376	14.186	44739	8	4.846	20.985	44813	8	8.986	24.173	44946	12	22.318	4.794
44666	12	2.493	15.706	44740*	88	5.984	20.196	44814	8	9.664	24.694	44947	8	25.297	4.020
44667	15	3.186	15.995	44741	18	9.537	20.538	44815	32	9.742	24.208	44948	8	1.276	5.414
44668	12	8.216	15.055	44742	12	11.605	20.280	44816	22	11.414	24.818	44949	8	1.284	5.544
44669	13	17.359	15.008	44743	8	13.265	20.901	44817	13	11.665	24.470	44950	8	3.254	5.642
44670	8	18.064	15.764	44744	11	14.514	20.836	44818	13	11.703	24.176	44951	13	5.054	5.732
44671	9	23.075	15.115	44745	30	14.545	20.615	44819	40	13.394	24.207	44952	18	7.032	5.468
44672	8	0.726	16.505	44746	34	15.742	20.731	44820*	96	13.430	24.916	44953	16	7.196	5.283
44673	36	1.613	16.838	44747*	52	17.954	20.954	44821	8	14.938	24.400	44954	10	7.528	5.534
44674	9	2.018	16.855	44748	8	23.792	20.865	44822	11	15.828	24.564	44955	10	8.460	5.008
44675	11	2.417	16.544	44749	16	0.635	21.527	44823	24	16.316	24.229	44956	10	10.420	5.516
44676	36	5.208	16.614	44750	8	0.643	21.687	44824	24	21.772	24.946	44957	8	10.916	5.375
44677	18	5.404	16.566	44751	13	1.526	21.622	44825	11	24.958	24.396	44958	9	13.112	5.399
44678	8	7.414	16.825	44752	14	2.042	21.402	44826	18	2.417	25.015	44959	13	13.348	5.037
44679	8	8.312	16.510	44753	30	3.846	21.256	44827	8	2.533	25.160	44960	10	17.745	5.902
44680	10	9.224	16.894	44754	8	4.756	21.185	44828	8	3.403	25.514	44961	15	18.334	5.550
44681	12	9.842	16.584	44755	8	5.025	21.125	44829	30	4.244	25.487	44962	22	19.356	5.718
44682	17	11.958	16.398	44756	12	5.306	21.856	44830	20	5.525	25.934	44963	8	19.570	5.434
44683	18	23.382	16.545	44757	18	8.746	21.136	44831	58	6.300	25.242	44964	13	22.150	5.400
44684	19	24.588	16.996	44758	11	11.396	21.063	44832	8	7.706	25.614	44965	16	23.710	5.356
44685	24	24.998	16.033	44759	8	11.652	21.732	44833	12	7.961	25.967	44966	8	25.702	5.488
44686	24	25.216	16.835	44760	8	11.932	21.392	44834	12	8.812	25.350	44967	11	25.868	5.416
44687	18	2.002	17.935	44761	10	14.564	21.354	44835	14	10.020	25.035	44968	11	1.466	6.518
44688	8	5.232	17.228	44762	17	17.471	21.936	44836	8	10.321	25.514	44969	10	3.760	6.178
44689	8	5.266	17.456	44763	11	20.274	21.716	44837	9	11.674	25.384	44970	29	4.364	6.380
44690	10	6.238	17.064	44764	12	20.398	21.170	44838	9	18.112	25.776	44971	8	5.028	6.670
44691	11	9.510	17.828	44765	16	21.197	21.224					44972	11	5.166	6.986
44692	8	13.226	17.540	44766	8	24.578	21.174					44973	8	5.170	6.454
44693	16	18.314	17.893	44767	38	24.666	21.994					44974	8	5.404	6.434
44694	24	18.375	17.665	44768	12	25.614	21.616					44975	11	6.362	6.055
44695	12	19.001	17.052	44769	11	5.336	22.516					44976	20	13.462	6.168
44696	8	20.351	17.935	44770	8	6.457	22.656					44977	9	14.780	6.792
44697	36	23.606	17.244	44771	9	8.800	22.476					44978	25	22.684	6.785
44698*	54	24.528	17.919	44772	28	9.112	22.156					44979	10	10.476	7.310

R.A. 16<sup>h</sup> 12<sup>m</sup>

Plate 677; 1916 Apr. 10.

Provisional Constants.

A B C  
 -0.2561 +.00802 +.1689

D E F  
 -0.00802 -0.2572 -0.1626

Mag. = 17.5 - 1.09√d

No.	d	x	y
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44852	28	4.800	0.090
44853	12	5.866	0.727
44854	10	8.846	0.388
44855	8	9.186	0.198
44856	37	10.025	0.326
44857	36	11.490	0.350
44858	19	13.458	0.778
44859	8	16.433	0.256
44860	10	16.434	0.954
44861	10	17.400	0.340
44862	44	17.770	0.052
44863	8	19.721	0.349
44864	9	20.550	0.640
44865	12	20.526	0.065
44866	8	21.053	0.714
44867	25	25.021	0.742
44868	8	25.466	0.490
44869	10	1.583	1.541
44870*	48	1.946	1.466
44871	8	2.270	1.622
44872	38	3.493	1.641
44873	12	5.144	1.705
44874	25	6.006	1.855
44875	19	7.135	1.441
44876	8	7.285	1.766
44877	10	8.544	1.771
44878	10	9.604	1.949
44879	11	9.858	1.811
44880	37	10.820	1.799
44881	24	15.994	1.055
44882	9	17.275	1.147
44883	10	17.435	1.920
44884	10	17.433	1.788
44885	41	17.582	1.633
44886	8	18.307	1.098
44887	37	19.961	1.408
44888	10	20.698	1.376
44889	9	21.390	1.890
44890	27	21.548	1.720
44891	47	22.995	1.899
44892	35	23.244	1.455
44893	9	2.100	2.668
44894	8	2.468	2.147
44895*	65	2.613	2.531
44896	10	2.931	2.941
44897	9	6.480	2.500
44898	19	6.910	2.260
44899	8	7.270	2.799
44900	9	8.478	2.979
44901	10	8.750	2.641
44902	26	10.365	2.060
44903	8	10.894	2.655
44904	10	11.061	2.211
44905	17	11.435	2.541



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45043	12	6:820	11:219	45117	15	12:174	16:010	45191	10	17:187	21:294	45265	59	5:438	25:944				
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45046	14	9:477	11:334	45120	9	16:230	16:822	45194	8	18:894	21:254	45268	8	9:094	25:079				
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45049	8	19:361	11:588	45123	14	20:176	16:412	45197	10	20:767	21:523	45271	8	10:335	25:030				



45346	24	11.160	4.340	45420	17	1.245	14.252	45494	8	7.424	19.931	45568	8	16.724	23.644	45665	12	3.586	2.085
45347	10	25.131	4.307	45421	8	1.770	14.037	45495	20	7.620	19.746	45569	10	17.031	23.814	45666	10	20.847	2.859
45348	22	1.184	5.742	45422	17	3.084	14.312	45496	17	8.823	19.184	45570	8	18.424	23.774	45667	15	21.668	2.913
45349	9	1.385	5.483	45423	11	3.424	14.448	45497	8	10.400	19.092	45571	22	23.077	23.608	45668	8	23.757	2.625
45350	8	3.180	5.867	45424	29	5.730	14.721	45498	15	12.612	19.252	45572	12	0.244	24.945	45669*	30	23.800	2.629
45351	13	3.346	5.798	45425	8	10.185	14.705	45499	26	14.601	19.032	45573	26	1.626	24.320	45670	25	24.265	2.301
45352	16	3.878	5.296	45426	8	10.727	14.906	45500*	95	16.310	19.046	45574	10	2.530	24.568	45671	31	25.329	2.702
45353	8	14.765	5.403	45427	30	12.833	14.832	45501*	70	19.058	19.988	45575	15	2.611	24.946	45672	10	0.871	3.465
45354	13	16.230	5.246	45428	12	22.690	14.357	45502	9	21.594	19.489	45576	29	5.030	24.136	45673	11	2.508	3.140
45355	19	24.498	5.431	45429	11	24.648	14.272	45503	8	24.260	19.286	45577	8	5.823	24.457	45674	11	2.862	3.944
45356	32	25.774	5.132	45430	8	25.628	14.168	45504	10	25.101	19.200	45578	10	7.745	24.250	45675	8	14.312	3.288
45357	19	4.654	6.958	45431	24	1.380	15.819	45505	8	2.680	20.276	45579	8	8.066	24.693	45676	13	17.006	3.788
45358	19	4.858	6.096	45432	35	1.539	15.114	45506	10	2.740	20.337	45580	8	12.348	24.382	45677	8	19.318	3.630
45359	8	5.569	6.450	45433	47	2.176	15.988	45507	16	5.549	20.350	45581	9	16.104	24.672	45678	10	23.963	3.986
45360	24	7.065	6.995	45434	13	3.614	15.713	45508	9	8.360	20.317	45582	8	20.784	24.368	45679	10	24.446	3.863
45361	28	8.284	6.538	45435	17	3.687	15.220	45509	14	8.405	20.690	45583	19	21.643	24.697	45680	8	24.883	3.044
45362	21	10.461	6.476	45436	8	4.558	15.234	45510	16	8.436	20.484	45584	36	22.357	24.118	45681	31	3.517	4.760
45363	8	12.620	6.770	45437	8	4.577	15.399	45511	8	8.628	20.889	45585*	60	23.566	24.658	45682	18	5.482	4.985
45364	20	19.924	6.580	45438	13	5.446	15.254	45512	15	9.545	20.756	45586	8	23.728	24.358	45683	10	5.932	4.456
45365	12	22.544	6.754	45439	8	6.120	15.442	45513	10	10.326	20.428	45587	15	24.640	24.324	45684	8	12.350	4.059
45366	8	0.034	7.366	45440	27	6.180	15.287	45514	8	11.693	20.634	45588	18	2.272	25.068	45685	17	2.246	5.080
45367	23	0.162	7.175	45441	27	6.220	15.194	45515	30	11.966	20.038	45589	8	3.728	25.339	45686	30	3.827	5.537
45368	11	3.724	7.078	45442	8	6.493	15.419	45516	19	13.207	20.194	45590	17	4.885	25.948	45687	9	4.886	5.868
45369	33	4.411	7.993	45443	34	6.954	15.957	45517	13	14.010	20.670	45591	12	5.419	25.458	45688*	142	5.738	5.266
45370	11	5.348	7.297	45444	19	8.150	15.423	45518	8	18.634	20.576	45592	38	9.883	25.662	45689	8	6.787	5.964
45371	23	5.452	7.852	45445	26	12.019	15.923	45519	13	21.846	20.636	45593	12	10.593	25.522	45690	11	6.941	5.884
45372	47	7.400	7.016	45446	26	19.188	15.330	45520	13	21.904	20.635	45594	8	11.336	25.582	45691	14	8.440	5.702
45373	9	22.548	7.633	45447*	63	21.140	15.699	45521	17	0.283	21.411	45595	8	12.140	25.464	45692	9	12.128	5.737
45374	8	25.522	7.039	45448	16	0.002	16.234	45522	10	1.194	21.128	45596	8	14.928	25.455	45693	21	13.980	5.433
45375	8	2.504	8.995	45449	13	2.990	16.366	45523	13	1.810	21.348	45597	17	15.262	25.989	45694	9	18.062	5.248
45376	21	2.860	8.296	45450	12	3.820	16.960	45524	10	4.462	21.083	45598	11	16.076	25.582	45695	14	18.682	5.832
45377	23	3.877	8.233	45451	10	4.679	16.748	45525	12	5.626	21.590	45599	40	17.232	25.157	45696	8	21.156	5.838
45378	22	6.442	8.990	45452	10	5.543	16.766	45526	8	7.021	21.302	45600	10	23.802	25.266	45697	10	24.588	5.201
45379	8	7.276	8.314	45453	38	5.660	16.775	45527	16	12.174	21.390	45601	55	25.672	25.832	45698	10	0.316	6.430
45380	8	10.638	8.436	45454	21	8.120	16.797	45528	24	15.280	21.710					45699	10	2.548	6.057
45381	28	24.496	8.292	45455	12	8.572	16.074	45529	16	15.480	21.884					45700	11	2.776	6.540
45382	20	0.950	9.134	45456*	75	9.826	16.551	45530	10	16.786	21.218					45701	8	3.294	6.668
45383	11	1.496	9.188	45457	8	11.380	16.988	45531	8	17.388	21.104					45702	10	4.792	6.225
45384	20	2.888	9.332	45458	21	11.477	16.869	45532	8	18.647	21.573					45703	8	9.510	6.287
45385	12	4.409	9.108	45459	14	15.469	16.998	45533	27	21.063	21.100					45704	8	10.322	6.561
45386	11	4.532	9.234	45460	18	18.136	16.054	45534*	105	21.096	21.644					45705	8	11.318	6.580
45387	9	7.490	9.836	45461*	50	18.722	16.299	45535	45	23.136	21.712					45706	10	13.240	6.807
45388	23	23.130	9.410	45462	10	18.861	16.214	45536	9	24.170	21.266					45707	14	16.715	6.700
45389	8	24.448	9.691	45463	15	25.354	16.058	45537	17	24.171	21.832					45708	12	17.001	6.770
45390	9	25.220	9.850	45464	9	25.715	16.118	45538	8	24.894	21.726					45709	11	22.350	6.494
45391	11	0.485	10.535	45465	10	0.912	17.500	45539	46	25.326	21.924					45710	13	23.210	6.872
45392	13	4.302	10.146	45466	18	1.122	17.710	45540	10	0.634	22.402					45711	25	2.290	7.940
45393*	114	4.834	10.190	45467	24	1.200	17.258	45441	30	1.030	22.504					45712	8	2.342	7.056
45394	11	13.790	10.525	45468	8	1.237	17.200	45442	10	2.341	22.680					45713	10	4.406	7.731
45395	10	21.354	10.930	45469	11	3.926	17.729	45443	23	2.684	22.756					45714	10	5.127	7.606
45396	25	25.349	10.036	45470	14	5.490	17.992	45444	20	3.492	22.240					45715	8	6.869	7.371
45397	8	25.659	10.676	45471	9	8.114	17.069	45445	9	4.368	22.076					45716	8	11.500	7.782
45398	21	0.348	11.657	45472	8	10.250	17.290	45446	12	6.345	22.675					45717	12	11.706	7.034
45399	11	4.669	11.880	45473	11	11.067	17.350	45447	17	9.319	22.220					45718	9	12.138	7.412
45400*	52	4.760	11.755	45474	8	11.192	17.433	45448	36	10.489	22.648					45719	10	13.548	7.429
45401	8	4.804	11.082	45475	8	20.585	17.985	45449	8	11.260	22.150					45720	17	20.342	7.290
45402	10	18.216	11.365	45476	11	21.248	17.757	45450	22	14.096	22.546					45721	12	20.450	7.934
45403	10	1.342	12.540	45477	11	22.948	17.016	45451	16	15.939	22.780					45722	12	21.385	7.292
45404	8	2.198	12.734	45478	18	1.155	18.336	45452	14	15.940	22.319					45723	8	4.882	8.747
45405	11	2.736	12.773	45479	9	2.262	18.450	45453	9	18.627	22.394					45724	12	6.275	8.484
45406	8	2.942	12.650	45480	17	4.819	18.768	45454	37	19.486	22.873					45725	9	8.377	8.520
45407	9	4.304	12.523	45481	21	6.301	18.609	45455	10	21.242	22.330					45726	8	11.372	8.986
45408	11	5.292	12.206	45482	9	7.652	18.904	45456	8	25.588	22.752					45727	15	11.888	8.119
45409	23	5.634	12.950	45483	9	8.060	18.671	45457	8	25.956	22.493					45728	8	13.658	8.464
45410	19	20.496	12.434	45484*	51	9.088	18.714	45458	22	1.090	23.970					45729*	44	15.431	8.876
45411*	52	21.708	12.107	45485	8	9.758	18.079	45459	20	1.232	23.346					45730	8	15.633	8.350
45412	9	3.761	13.780	45486	12	12.652	18.512	45460	9	4.508	23.492								



45739	10	6.813	9.785	45813	18	5.888	17.558	45887	9	11.036	23.300	45976	8	16.360	1.378	46050	8	15.890	7.184
45740	16	11.288	9.205	45814	37	9.600	17.404	45888	18	11.478	23.613	45977	27	18.265	1.046	46051	9	20.181	7.870
45741	21	11.887	9.934	45815	11	11.976	17.200	45889	8	12.178	23.116	45978	8	18.670	1.713	46052	13	24.058	7.684
45742	25	16.920	9.480	45816	14	21.128	17.422	45890	11	12.800	23.566	45979	11	19.062	1.657	46053*	58	1.155	8.500
45743	13	17.200	9.624	45817	12	23.670	17.819	45891	11	21.400	23.568	45980	8	19.377	1.316	46054	17	3.584	8.698
45744	8	17.634	9.326	45818	11	25.594	17.524	45892	9	21.872	23.386	45981	30	20.097	1.356	46055	8	5.226	8.862
45745	10	18.100	9.460	45819	8	3.069	18.834	45893*	62	1.612	24.320	45982	11	20.308	1.054	46056	33	5.274	8.528
45746	10	19.859	9.642	45820	9	6.972	18.257	45894	9	1.773	24.014	45983	9	23.647	1.448	46057	16	13.066	8.051
45747	10	21.974	9.662	45821*	89	7.136	18.156	45895	8	1.864	24.922	45984	29	24.012	1.703	46058	8	15.654	8.715
45748	11	22.795	9.466	45822	8	7.300	18.642	45896	33	8.921	24.834	45985*	26	1.006	2.990	46059	25	16.743	8.283
45749	8	24.298	9.637	45823	36	8.366	18.833	45897	8	10.190	24.715	45986	25	1.466	2.656	46060	10	17.614	9.750
45750	8	3.839	10.471	45824	20	10.550	18.825	45898	9	10.350	24.207	45987	8	3.444	2.709	46061	10	0.096	9.842
45751	10	7.169	10.084	45825	10	11.507	18.559	45899	10	11.524	24.366	45988	29	5.419	2.548	46062	12	2.542	9.166
45752	40	8.765	10.875	45826	14	13.763	18.320	45900	20	12.120	24.444	45989*	43	10.220	2.882	46063	8	3.289	9.322
45753	10	9.870	10.930	45827	8	17.171	18.372	45901	8	20.970	24.696	45990*	44	12.924	2.783	46064	12	10.242	9.572
45754	10	10.953	10.127	45828	8	19.075	18.746	45902	8	21.654	24.852	45991	17	12.945	2.984	46065	8	11.940	9.625
45755	9	14.225	10.973	45829	10	19.678	18.578	45903	18	22.468	24.258	45992	16	13.157	2.503	46066*	70	12.204	9.445
45756	9	15.226	10.714	45830	10	19.795	18.925	45904	46	3.735	25.460	45993	8	14.883	2.230	46067	8	15.185	9.659
45757	10	16.334	10.250	45831	8	23.616	18.660	45905	10	7.530	25.200	45994	8	16.477	2.165	46068	9	16.300	9.986
45758	10	17.880	10.146	45832	25	4.597	19.999	45906	8	13.521	25.999	45995	8	16.835	2.478	46069	12	16.674	9.026
45759	9	19.426	10.156	45833	20	5.004	19.580	45907	51	16.094	25.082	45996	10	17.350	2.798	46070	16	17.400	9.960
45760	25	19.836	10.118	45834	46	5.090	19.130	45908	8	17.248	25.458	45997	28	18.512	2.671	46071	33	19.118	9.340
45761	8	20.759	10.516	45835	11	5.778	19.835	45909	60	23.592	25.936	45998	8	20.294	2.520	46072	8	21.954	9.400
45762	9	21.912	10.220	45836	10	8.555	19.483					45999	10	24.017	2.254	46073*	42	24.856	9.095
45763	8	5.688	11.407	45837	10	9.370	19.858					46000	8	2.094	3.394	46074	8	25.219	9.738
45764	11	5.830	11.100	45838	9	12.090	19.842					46001	31	2.537	3.045	46075*	52	14.274	10.531
45765	36	6.013	11.685	45839	10	13.625	19.286					46002	20	3.743	3.051	46076	8	14.400	10.548
45766	13	7.246	11.583	45840	8	18.718	19.607					46003	16	4.052	3.593	46077	15	19.804	10.848
45767	11	9.497	11.114	45841	15	20.350	19.503					46004	8	5.784	3.352	46078	10	20.552	10.160
45768	10	11.864	11.158	45842	9	22.683	19.917					46005	8	7.116	3.420	46079	9	23.002	10.137
45769*	24	14.436	11.715	45843	27	25.692	19.312					46006	12	9.102	3.140	46080	11	25.284	10.660
45770	19	17.094	11.610	45844	10	2.165	20.916					46007	8	10.776	3.097	46081	27	2.254	11.405
45771*	71	22.132	11.746	45845	12	5.936	20.599					46008	8	12.134	3.826	46082	8	4.996	11.539
45772	20	22.288	11.560	45846	12	6.141	20.599					46009	8	12.678	3.309	46083	17	6.182	11.819
45773	22	24.926	11.059	45847	9	6.460	20.255					46010	20	15.552	3.585	46084	8	13.702	11.683
45774	13	3.467	12.828	45848	14	6.570	20.773					46011	21	16.515	3.116	46085	25	19.456	11.198
45775	26	6.218	12.181	45849	10	6.991	20.590					46012*	54	23.196	3.802	46086	12	20.994	11.334
45776	20	6.724	12.666	45850	8	10.187	20.384					46013	8	1.188	4.350	46087	12	22.240	11.726
45777	16	7.694	12.158	45851	12	25.830	20.066					46014	10	6.088	4.812	46088	14	25.251	11.174
45778	10	11.932	12.350	45852	38	1.137	21.380					46015	21	8.438	4.068	46089	8	2.220	12.370
45779	10	15.390	12.115	45853	14	2.176	21.482					46016	12	9.926	4.570	46090	8	2.714	12.524
45780	21	20.000	12.040	45854	9	2.900	21.365					46017	8	9.955	4.265	46091	8	4.467	12.054
45781	10	25.372	12.184	45855*	43	3.330	21.557					46018	8	11.965	4.684	46092	24	13.438	12.482
45782	10	0.660	13.548	45856	9	4.118	21.142					46019	17	13.836	4.206	46093	8	18.008	12.611
45783	8	4.072	13.530	45857*	44	9.222	21.550					46020	8	14.186	4.098	46094	8	20.786	12.440
45784	9	6.682	13.600	45858	10	9.960	21.380					46021	10	15.442	4.036	46095*	49	9.842	13.894
45785	34	10.427	13.458	45859	8	11.056	21.642					46022	37	15.800	4.945	46096	16	18.574	13.550
45786	10	12.020	13.587	45860	15	12.562	21.821					46023	29	16.534	4.443	46097	9	20.144	13.063
45787	14	13.410	13.788	45861	9	12.591	21.099					46024	14	19.586	4.940	46098	11	21.074	13.974
45788	13	15.766	13.062	45862	8	14.332	21.250					46025	10	20.022	4.561	46099	12	21.837	13.399
45789	8	16.500	13.996	45863	12	20.134	21.750					46026	10	1.832	5.552	46100	8	23.121	13.136
45790	15	21.044	13.422	45864	18	20.661	21.182					46027	8	3.010	5.902	46101	28	25.720	13.158
45791	10	0.580	14.030	45865	9	20.897	21.409					46028	12	5.154	5.740	46102	9	5.239	14.392
45792	10	7.972	14.882	45866	10	3.608	22.376					46029	25	6.194	5.758	46103	10	12.936	14.082
45793	10	10.038	14.268	45867	8	3.973	22.116					46030*	53	7.280	5.704	46104	12	15.738	14.120
45794	11	17.150	14.752	45868	28	4.736	22.797					46031	13	9.798	5.702	46105	13	17.394	14.806
45795	11	18.234	14.034	45869	10	6.871	22.234					46032	8	12.706	5.551	46106	32	18.685	14.050
45796	8	19.080	14.240	45870	8	11.184	22.412					46033	8	13.034	5.524	46107*	52	25.282	14.316
45797	8	25.395	14.864	45871	12	14.142	22.554					46034	34	14.245	5.940	46108	40	0.516	15.632
45798	12	3.268	15.690	45872	13	15.865	22.978					46035	8	20.626	5.348	46109	8	7.264	15.966
45799	12	4.970	15.462	45873	10	16.887	22.500					46036	23	23.032	5.935	46110	8	15.662	15.909
45800	8	8.024	15.036	45874	11	19.764	22.580					46037	8	3.850	6.387	46111	8	16.439	15.954
45801	19	16.282	15.856	45875	13	20.396	22.114					46038	8	6.840	6.300	46112*	46	19.555	15.406
45802	8	18.582	15.038	45876	10	21.672	22.008					46039	8	7.472	6.345	46113	9	19.814	15.332
45803	8	20.674	15.768	45877	9	22.741	22.591					46040	22	16.557	6.650	46114	21	22.046	15.632
45804	10	21.238	15.374	45878	16	25.256	22.737					46041	8	21.710	6.880	46115	10	22.763	15.200
45805*	47	23.134	15.260	45879	12	25.286	22.849					46042	29	22.678	6.452	46116	8	8.654	16.876
45806	10	0.877	16.686	45880	34	0.398	23.796					46043	12	0.476	7.242	46117	10	1	



46124	19	20.400	17.016	<b>R.A. 16<sup>h</sup> 44<sup>m</sup></b> Plate 682; 1916 Apr. 11. <i>Provisional Constants.</i> A B C -0.02596 +0.00723 +.2713 D E F -0.00700 -0.02579 -.2140 Mag. = 16.9 - 1.09√d	46256*	50	4.180	9.052	46330	19	21.198	23.451	46381	18	25.705	3.402
46125	11	1.089	18.180		46257	16	7.100	9.818	46331	24	24.918	23.414	46382	8	3.227	4.056
46126	9	4.652	18.436		46258	8	22.180	9.726	46332	8	1.246	24.122	46383	8	7.167	4.356
46127	26	6.367	18.738		46259	8	0.876	10.216	46333	12	7.127	24.656	46384	39	13.366	4.518
46128	26	6.389	18.798		46260	13	3.164	10.725	46334	8	17.719	24.050	46385	9	14.054	4.256
46129	19	6.504	18.766		46261	12	5.120	10.746	46335	8	19.462	24.952	46386	8	16.676	4.053
46130	8	6.538	18.276		46262	13	5.646	10.870	46336	8	22.782	24.534	46387	8	18.116	4.069
46131*	120	12.224	18.912		46263	22	14.330	10.563	46337	12	25.958	24.911	46388	8	19.774	4.474
46132	21	17.400	18.291		46264	29	22.490	10.524	46338	25	25.982	24.745	46389	14	20.964	4.256
46133	35	24.636	18.958		46265	11	0.127	11.812	46339	19	3.002	25.820	46390	11	24.046	4.519
46134	8	1.049	19.023	<b>R.A. 16<sup>h</sup> 52<sup>m</sup></b> Plate 678; 1916 Apr. 10. <i>Provisional Constants.</i> A B C -0.02574 +0.00799 +.1906 D E F -0.00815 -0.02566 -.3024 Mag. = 17.4 - 1.09√d	46266	13	3.136	11.235	46340	10	3.970	25.432	46391	8	6.384	5.996
46135	24	3.132	19.644		46267	28	7.694	11.070	46341	26	5.221	25.190	46392	12	8.472	5.336
46136	14	7.240	19.678		46268	13	13.560	11.414	46342	24	5.886	25.370	46393	17	10.656	5.720
46137	10	8.164	19.095		46269	8	15.112	11.408	46343	12	9.888	25.087	46394	27	14.064	5.480
46138	38	10.844	19.072		46270	16	3.905	12.093	46344	55	13.024	25.076	46395	30	15.104	5.055
46139	10	11.553	19.748		46271*	38	15.694	12.466	46345	27	19.129	25.077	46396	40	16.567	5.054
46140	11	12.014	19.042		46272	17	16.326	12.680	46346	8	19.546	25.547	46397	43	20.775	5.658
46141	13	15.086	19.129		46273	27	25.134	12.328	46347	16	23.382	25.786	46398	8	2.060	6.496
46142	11	22.390	19.998		46274	29	3.620	13.213					46399	37	7.137	6.856
46143	8	0.136	20.295		46275	20	13.870	13.590					46400*	47	19.569	6.318
46144	11	3.282	20.398		46276	14	14.389	13.732					46401	39	19.712	6.461
46145*	40	4.459	20.739		46277	12	17.882	13.010					46402	8	21.222	6.516
46146	8	10.735	20.354		46278	8	19.495	13.275					46403	10	23.776	6.276
46147	8	16.260	20.835		46279	20	22.212	13.488					46404	9	12.335	7.684
46148	34	20.686	20.489		46280	13	22.474	13.704					46405	10	17.325	7.493
46149	10	22.044	20.590		46281*	65	3.187	14.376					46406	11	17.577	7.728
46150	12	5.356	21.230		46282	12	6.310	14.716					46407	42	18.510	7.090
46151	14	5.913	21.420		46283	8	13.200	14.510					46408	30	20.535	7.156
46152	19	11.196	21.210		46284	8	24.920	14.804					46409	21	20.887	7.794
46153	22	14.450	21.356		46285	11	0.676	15.280					46410	24	20.924	7.931
46154	26	24.986	21.369		46286	14	14.494	15.540					46411	31	21.616	7.652
46155	8	0.230	22.966		46287	10	18.350	15.780					46412	10	6.513	8.858
46156*	100	11.480	22.616		46288	18	19.419	15.846					46413*	80	8.040	8.186
46157	10	13.661	22.168		46289	9	24.166	15.280					46414	37	14.400	8.397
46158	18	2.744	23.076		46290	19	10.670	16.991					46415	39	21.400	8.677
46159	13	2.776	23.190		46291	11	12.510	16.072					46416	39	9.295	9.544
46160	8	4.664	23.914		46292*	85	4.030	17.260					46417	35	12.723	9.880
46161	21	6.340	23.822		46293	11	4.654	17.333					46418	25	12.806	9.318
46162	30	11.896	23.520		46294	29	8.940	17.444					46419	37	15.928	9.505
46163	9	14.568	23.382		46295	10	25.088	17.567					46420*	76	17.239	9.317
46164	9	15.104	23.437		46296*	48	4.210	18.726					46421	8	19.523	9.201
46165	10	16.380	23.320		46297	28	7.383	18.176					46422	16	21.234	9.584
46166*	49	18.741	23.980		46298	10	14.546	18.898					46423	18	21.482	9.065
46167*	90	3.622	24.522		46299	10	18.230	18.582					46424	18	21.884	9.500
46168	16	3.922	24.225		46300	13	18.923	18.716					46425	13	21.986	9.127
46169	19	3.950	24.110		46301*	40	19.260	18.150					46426	8	22.530	9.715
46170	29	6.082	24.179		46302	8	19.472	18.686					46427	8	25.468	9.827
46171	12	13.366	24.056		46303	8	23.518	18.712					46428	39	0.030	10.614
46172	28	14.012	24.519		46304	38	25.354	18.474					46429	30	11.538	10.846
46173	8	17.027	24.423		46305	34	2.579	19.022					46430	34	11.795	10.671
46174	8	23.260	24.047		46306	9	5.481	19.982					46431	39	12.535	10.985
46175	8	5.751	25.266		46307	8	5.716	19.974					46432	37	16.076	10.965
46176	28	16.396	25.000		46308	8	18.926	19.820					46433	8	19.029	10.891
46177	20	16.562	25.426		46309	16	20.240	19.518					46434	9	19.205	10.854
46178	21	18.655	25.727		46310	8	0.341	20.080					46435	14	22.484	10.725
46179	24	19.750	25.078		46311	15	7.818	20.945					46436	22	23.358	10.292
46180	10	19.888	25.444		46312	12	23.983	20.159					46437	8	23.465	10.644
46181	8	23.174	25.783		46313	24	25.974	20.773					46438	28	24.755	10.116
46182	14	25.005	25.757		46314	32	2.946	21.430					46439	11	5.510	11.252
					46315	14	7.056	21.612					46440	44	6.696	11.806
					46316	37	8.088	21.182					46441	36	11.098	11.318
					46317	8	10.890	21.298					46442	23	11.724	11.508
					46318*	51	17.520	21.334					46443	10	25.113	11.268
					46319*	55	24.620	21.814					46444	8	25.558	11.757
					46320	8	11.126	22.064					46445	29	2.695	12.388
					46321	15	17.612	22.266					46446	30	4.864	12.680
					46322	12	23.082	22.800					46447	8	4.950	12.308
					46323	35	25.546	22.462					46448	10	15.402	12.013
					46324	8	25.666	22.980					46449	14	17.313	12.718
					46325	8	5.793	23.503					46450	34	18.182	12.246
					46326	8	8.805	23.616					46451	8	22.514	12.829
					46327	17	10.590	23.812					46452	10	22.788	12.387
					46328*	40	10.712	23.256					46453	8	25.826	12.846
					46329*	41	14.015	23.526					46454	16	0.050	13.793



46455	8	17.876	13.175	46529	33	16.303	21.923	R.A. 17 <sup>h</sup> 0 <sup>m</sup>  Plate 679; 1916 Apr. 10.  Provisional Constants.  A B C —0.02600 +.01120 +.0117  D E F —0.01115 —.02575 —.1915  Mag. = 17.2 — 1.09√d	46656	21	2.916	3.135	46730	8	7.364	8.907
46456	9	18.922	13.686	46530	15	16.714	21.576		46657	17	3.074	3.661	46731	10	7.606	8.175
46457	39	20.876	13.165	46531	10	18.902	21.606		46658	28	6.275	3.636	46732	14	8.964	8.604
46458	44	23.106	13.398	46532	41	19.644	21.290		46659	18	10.444	3.557	46733	26	9.166	8.285
46459	8	10.728	14.879	46533	37	23.764	21.812	46660	8	12.586	3.358	46734*	47	9.352	8.047	
46460	17	13.220	14.196	46534	8	0.760	22.877	46661	32	15.174	3.494	46735	14	12.315	8.666	
46461	38	20.716	14.446	46535	41	3.217	22.517	46662	8	16.084	3.110	46736	10	18.288	8.366	
46462*	80	22.476	14.526	46536	12	5.069	22.956	46663	13	16.512	3.207	46737	14	19.965	8.359	
46463	8	24.537	14.529	46537	41	8.346	22.508	46664*	34	16.584	3.620	46738	30	21.855	8.823	
46464	9	1.761	15.351	46538	36	10.460	22.645	46665	40	1.374	4.286	46739	8	24.724	8.282	
46465*	74	14.536	15.926	46539	35	11.476	22.726	46666	12	1.432	4.804	46740	16	25.298	8.114	
46466	37	15.196	15.100	46540	8	13.862	22.624	46667	20	5.712	4.422	46741	24	25.342	8.393	
46467	40	15.569	15.776	46541	13	14.664	22.771	46668	12	6.374	4.419	46742	10	2.402	9.201	
46468	13	18.315	15.006	46542*	60	15.356	22.744	46669	8	6.374	4.195	46743	8	2.492	9.648	
46469	45	25.056	15.904	46543	42	21.505	22.564	46670	12	7.251	4.288	46744	8	3.796	9.754	
46470	9	25.556	15.834	46544	41	23.886	22.996	46671	8	10.434	4.480	46745	24	7.065	9.315	
46471	42	4.726	16.834	46545	34	24.585	22.395	46672*	54	15.956	4.217	46746	17	8.354	9.444	
46472	38	9.226	16.224	46546	38	2.605	23.473	46673	18	16.207	4.972	46747	8	9.325	9.572	
46473	33	11.034	16.944	46547	32	5.185	23.585	46674	12	18.599	4.272	46748*	40	9.696	9.050	
46474	8	11.347	16.218	46548	40	5.994	23.286	46675	8	18.791	4.916	46749	8	10.496	9.742	
46475	31	13.108	16.725	46549	40	7.664	23.155	46676	11	19.526	4.898	46750	9	12.693	9.142	
46476	31	16.004	16.234	46550	11	7.764	23.076	46677	9	20.884	4.697	46751	8	14.064	9.910	
46477	33	17.694	16.636	46551	10	8.942	23.624	46678	10	22.596	4.227	46752	8	14.258	9.902	
46478	43	21.084	16.380	46552*	80	9.635	23.694	46679*	46	5.732	5.546	46753*	78	21.874	9.601	
46479	37	23.802	16.098	46553	10	15.600	23.342	46680	22	9.296	5.095	46754	14	22.235	9.844	
46480	12	3.946	17.301	46554	8	15.721	23.402	46681*	40	9.304	5.378	46755	11	22.368	9.884	
46481	9	8.560	17.425	46555	9	17.924	23.180	46682	10	9.482	5.366	46756	8	22.635	9.806	
46482	44	12.498	17.788	46556	42	18.045	23.637	46683	8	10.163	5.318	46757	18	24.005	9.354	
46483	35	20.378	17.766	46557	8	18.222	23.566	46684	8	10.791	5.645	46758	14	24.899	9.848	
46484	38	20.394	17.784	46558	19	19.706	23.786	46685	17	11.724	5.894	46759	8	25.755	9.392	
46485	32	23.876	17.826	46559	32	21.998	23.899	46686	9	14.176	5.910	46760	13	0.820	10.582	
46486	20	24.054	17.734	46560	14	24.666	23.185	46687	16	14.204	5.427	46761	8	0.928	10.934	
46487	42	2.982	18.531	46561	40	3.682	24.794	46688	28	16.405	5.518	46762	14	2.214	10.388	
46488	40	5.033	18.624	46562	40	4.143	24.481	46689	8	17.001	5.546	46763	10	3.904	10.826	
46489	27	5.324	18.567	46563	44	4.966	24.302	46690	36	19.898	5.372	46764	8	4.876	10.725	
46490	32	6.745	18.634	46564	8	8.254	24.814	46691	12	20.925	5.096	46765	8	5.956	10.414	
46491	10	7.436	18.702	46565*	51	12.624	24.280	46692	8	22.852	5.432	46766	24	6.034	10.301	
46492	8	7.712	18.136	46566	13	15.457	24.728	46693	8	23.442	5.435	46767	9	9.719	10.255	
46493	18	10.454	18.242	46567	13	17.617	24.457	46694	10	0.344	6.288	46768	8	13.058	10.834	
46494	41	11.164	18.526	46568	9	18.842	24.463	46695	9	1.184	6.564	46769	8	13.436	10.714	
46495	41	12.252	18.575	46569*	78	19.774	24.678	46696	9	3.261	6.468	46770	8	13.768	10.752	
46496	29	12.368	18.876	46570	15	19.933	24.907	46697	8	3.459	6.544	46771	16	14.088	10.282	
46497	36	17.956	18.186	46571	15	20.272	24.520	46698	8	4.458	6.627	46772	8	16.976	10.024	
46498	41	22.364	18.532	46572	8	21.456	24.054	46699	11	6.981	6.915	46773	8	17.847	10.376	
46499	38	22.484	18.916	46573	17	21.957	24.856	46700	30	7.046	6.982	46774	9	19.594	10.656	
46500	9	23.057	18.344	46574	19	1.094	25.864	46701	10	7.676	6.845	46775	12	20.285	10.072	
46501	14	25.263	18.079	46575	11	5.172	25.302	46702	8	14.634	6.533	46776	40	21.806	10.898	
46502	29	7.772	19.866	46576	35	7.996	25.046	46703	8	15.382	6.209	46777	12	23.955	10.348	
46503	44	9.246	19.844	46577	98	18.384	25.036	46704	9	15.606	6.086	46778	30	24.866	10.505	
46504*	80	11.165	19.994	46578	8	18.718	25.716	46705	8	16.136	6.277	46779	9	2.582	11.540	
46505	37	11.234	19.786	46579	15	18.996	25.007	46706	10	18.086	6.854	46780	11	4.244	11.924	
46506	8	14.532	19.574	46580	43	20.342	25.807	46707	14	21.524	6.094	46781	11	10.548	11.692	
46507	8	17.442	19.074	46581	23	23.267	25.544	46708	8	22.543	6.225	46782	8	12.905	11.293	
46508	8	20.106	19.314					46709	9	23.018	6.786	46783	11	14.582	11.445	
46509	11	1.634	20.228					46710	23	25.152	6.814	46784*	44	20.192	11.304	
46510	36	3.627	20.824					46711	8	3.700	7.943	46785	26	21.192	11.334	
46511	40	3.797	20.617					46712	8	8.531	7.533	46786	8	21.984	11.226	
46512	40	5.847	20.986					46713	8	9.484	7.214	46787	10	22.016	11.985	
46513	8	7.075	20.908					46714	16	12.665	7.304	46788	18	22.328	11.896	
46514	8	8.104	20.474					46715	8	14.682	7.157	46789	12	23.881	11.494	
46515	18	12.578	20.045					46716	10	15.726	7.748	46790	11	0.274	12.688	
46516*	60	14.234	20.484					46717	8	15.882	7.455	46791	10	3.037	12.015	
46517	26	15.336	20.224					46718*	34	16.126	7.442	46792	8	3.504	12.414	
46518	9	15.344	20.766					46719	8	20.904	7.704	46793	9	4.582	12.064	
46519	11	16.823	20.216				</									



46804	8	21.304	12.745	46878	36	13.924	16.178	46952	9	24.705	20.282	47026*	60	9.115	24.072	47109	11	8.003	0.814
46805	12	22.324	12.484	46879	8	15.932	16.016	46953	10	25.262	20.930	47027	9	13.735	24.055	47110	10	9.148	0.384
46806	38	0.606	13.692	46880	11	22.916	16.240	46954	8	4.890	21.104	47028	8	14.902	24.114	47111	8	13.985	0.856
46807	8	4.397	13.294	46881	19	22.915	16.570	46955	8	6.648	21.592	47029	12	14.997	24.168	47112*	64	19.966	0.394
46808	8	4.634	13.235	46882	18	23.426	16.656	46956	8	6.886	21.615	47030	12	15.204	24.212	47113	36	24.852	0.805
46809	8	7.501	13.785	46883	17	4.586	17.876	46957	16	8.285	21.778	47031	16	15.576	24.879	47114	8	1.154	1.152
46810	10	8.170	13.992	46884	8	12.374	17.376	46958	9	8.484	21.068	47032	19	17.025	24.328	47115*	66	2.815	1.235
46811	8	12.843	13.042	46885	8	18.312	17.490	46959	12	8.564	21.633	47033	8	17.625	24.992	47116	14	3.454	1.386
46812	8	16.066	13.921	46886*	96	19.685	17.858	46960	10	9.468	21.832	47034	8	18.546	24.133	47117	16	3.458	1.356
46813	16	17.036	13.756	46887	8	20.048	17.854	46961	12	9.633	21.077	47035	10	19.262	24.186	47118	10	3.800	1.310
46814	8	17.508	13.114	46888	34	20.426	17.946	46962	34	10.006	21.576	47036	8	19.374	24.482	47119	24	4.007	1.015
46815	9	18.515	13.474	46889	8	20.865	17.138	46963*	78	10.092	21.944	47037*	69	20.236	24.432	47120	52	4.576	1.698
46816	9	21.124	13.764	46890*	64	21.994	17.407	46964	34	10.670	21.006	47038	12	20.474	24.624	47121	36	4.891	1.615
46817	8	21.433	13.083	46891	8	22.116	17.466	46965*	34	14.166	21.794	47039	8	20.810	24.156	47122	22	6.562	1.686
46818	19	21.532	13.775	46892	12	23.635	17.653	46966	8	14.281	21.044	47040	8	24.063	24.694	47123	32	9.253	1.524
46819	8	23.555	13.115	46893	13	23.772	17.223	46967	18	15.202	21.096	47041	12	25.724	24.122	47124*	44	12.865	1.958
46820	24	23.839	13.908	46894	11	23.894	17.926	46968	14	15.532	21.096	47042	10	0.402	25.882	47125	8	14.741	1.174
46821	8	23.936	13.286	46895	29	24.373	17.574	46969	9	16.010	21.945	47043	14	0.932	25.832	47126	11	16.257	1.095
46822	8	24.462	13.266	46896	8	25.694	17.801	46970	9	16.644	21.353	47044	10	5.050	25.876	47127	13	17.910	1.115
46823	8	25.614	13.486	46897	8	0.625	18.634	46971	9	20.171	21.945	47045	8	5.320	25.782	47128	19	18.890	1.114
46824	17	1.535	14.975	46898	8	1.314	18.464	46972	16	20.256	21.534	47046	11	5.684	25.928	47129	8	19.049	1.186
46825	9	2.070	14.886	46899	16	1.436	18.108	46973	8	21.578	21.534	47047	14	7.205	25.892	47130*	76	19.095	1.542
46826	34	4.948	14.400	46900	9	1.612	18.014	46974	8	21.636	21.581	47048	12	9.415	25.476	47131	10	19.296	1.630
46827	8	6.630	14.725	46901	12	2.828	18.342	46975	36	21.744	21.834	47049	13	9.504	25.548	47132	14	19.686	1.656
46828	9	7.854	14.188	46902	8	3.513	18.903	46976	31	22.666	21.932	47050	11	9.696	25.201	47133	28	20.136	1.860
46829*	56	8.548	14.098	46903	8	6.134	18.254	46977	10	23.278	21.124	47051	8	10.144	25.894	47134*	46	21.265	1.814
46830*	52	9.056	14.664	46904	15	7.955	18.894	46978	12	25.185	21.723	47052	8	10.359	25.472	47135	60	25.962	1.684
46831	9	11.314	14.492	46905	19	12.126	18.816	46979	11	25.944	21.028	47053	9	12.696	25.196	47136*	56	1.800	2.911
46832	8	11.966	14.344	46906	8	12.774	18.406	46980	8	0.162	22.875	47054	20	13.603	25.292	47137	12	2.656	2.425
46833	12	12.568	14.442	46907	9	17.575	18.627	46981	18	1.374	22.092	47055	8	14.829	25.115	47138	34	3.784	2.474
46834	11	14.366	14.256	46908	10	18.936	18.886	46982	14	2.204	22.666	47056	8	15.197	25.842	47139	10	4.316	2.894
46835	26	19.434	14.802	46909	11	20.799	18.951	46983	12	4.226	22.766	47057	15	17.916	25.406	47140	36	5.012	2.101
46836	18	21.374	14.338	46910	12	22.816	18.805	46984	8	9.815	22.196	47058	8	18.444	25.016	47141	16	5.458	2.242
46837	17	22.962	14.794	46911	30	22.898	18.956	46985	11	13.100	22.734	47059	11	18.741	25.799	47142	17	7.028	2.837
46838	8	23.596	14.776	46912	10	23.506	18.423	46986	8	13.216	22.495	47060	11	20.384	25.936	47143	8	9.182	2.815
46839	12	23.705	14.298	46913	8	23.524	18.344	46987	8	14.194	22.505	47061	36	20.414	25.306	47144	16	9.184	2.565
46840	9	24.573	14.298	46914	36	24.202	18.299	46988	12	19.005	22.899	47062	24	20.752	25.139	47145	16	9.758	2.842
46841	14	24.737	14.596	46915	18	24.546	18.748	46989*	33	19.024	22.884	47063	60	22.108	25.445	47146	8	11.953	2.807
46842	8	24.893	14.016	46916	24	0.056	19.216	46990	9	21.406	22.739	47064	36	22.118	25.474	47147	12	14.646	2.322
46843	52	25.526	14.616	46917	8	3.344	19.030	46991	18	22.954	22.566	47065	8	23.593	25.810	47148	14	18.384	2.126
46844	8	4.263	15.644	46918	8	5.914	19.907	46992*	56	24.585	22.636					47149	18	18.394	2.415
46845	26	8.000	15.406	46919	22	7.905	19.304	46993	36	24.754	22.037					47150*	56	19.654	2.270
46846	15	9.606	15.035	46920	20	8.420	19.336	46994	9	25.586	22.246					47151	8	24.742	2.969
46847	11	9.818	15.064	46921	8	14.174	19.666	46995	30	1.514	23.278					47152	11	25.406	2.283
46848	12	10.682	15.310	46922	24	15.256	19.836	46996	8	1.606	23.112					47153	80	25.612	2.947
46849	8	10.814	15.226	46923	12	16.578	19.914	46997	11	2.298	23.456					47154*	52	4.385	3.401
46850	8	11.412	15.248	46924	8	16.835	19.104	46998	8	2.560	23.244					47155	14	6.985	3.646
46851	8	14.152	15.516	46925	8	18.612	19.620	46999	8	4.276	23.237					47156	10	8.692	3.193
46852	8	17.852	15.125	46926	10	19.005	19.206	47000	8	4.982	23.724					47157	36	11.147	3.363
46853*	32	17.864	15.576	46927	8	20.424	19.960	47001	8	8.294	23.936					47158	10	12.684	3.497
46854	11	18.172	15.106	46928	8	20.579	19.836	47002	8	11.113	23.693					47159	10	13.513	3.472
46855	8	18.656	15.015	46929	34	20.774	19.066	47003	8	11.636	23.946					47160	36	16.232	3.596
46856*	54	18.687	15.085	46930	10	20.823	19.654	47004	10	12.512	23.852					47161	16	18.812	3.608
46857	8	19.257	15.466	46931	9	22.111	19.222	47005	8	12.526	23.838					47162	10	21.864	3.617
46858	12	20.696	15.914	46932	8	22.176	19.192	47006*	78	12.884	23.795					47163	10	22.018	3.908
46859	8	21.316	15.435	46933	11	22.864	19.905	47007	8	13.176	23.747					47164	16	22.051	3.945
46860	13	22.076	15.184	46934	31	0.016	20.560	47008	14	13.866	23.766					47165	16	23.155	3.719
46861	14	22.556	15.785	46935	20	0.266	20.968	47009	15	13.964	23.576					47166	8	0.224	4.444
46862	20	22.908	15.080	46936	10	1.646	20.975	47010	8	14.336	23.735					47167	8	4.140	4.593
46863	23	23.369	15.425	46937	8	3.682	20.608	47011	14	15.905	23.192					47168	8	5.106	4.774
46864	10	23.836	15.594	46938	8	3.784	20.816	47012	11	15.942	23.607					47169*	84	6.446	4.994
46865	36	24.952	15.727	46939	20	8.706	20.278	47013	8	16.184	23.975					47170	36	11.630	4.087
46866	16	25.897	15.446	46940	17	10.665	20.144	47014	8	16.492	23.240					47171	32	11.776	4.942
46867	8	25.983	15.446	46941	14	11.414	20.016	47015	9	16.654	23.806					47172	8	11.993	4.986
46868	12	0.033	16.867	46942	12	14.103	20.759	47016	8	18.628	23.372					47173	12	13.644	4.746
46869	12	0.546	16.358	46943	26	16.413	20.596	470											



47183	10	23.982	4.323	47257	15	1.626	10.546	47331	14	7.380	14.193	47405	24	5.197	18.174	47479	16	22.452	21.475
47184	8	3.624	5.156	47258	28	2.540	10.696	47332	8	9.324	14.012	47406	11	6.856	18.150	47480	36	23.319	21.251
47185	12	6.499	5.215	47259	16	2.568	10.041	47333	11	10.936	14.556	47407	10	11.986	18.670	47481*	58	23.335	21.164
47186	8	6.696	5.785	47260	12	5.186	10.285	47334	8	11.556	14.854	47408	12	13.048	18.125	47482	12	23.380	21.227
47187	21	7.426	5.144	47261	28	9.294	10.664	47335	8	12.134	14.474	47409	12	16.452	18.710	47483	44	25.225	21.022
47188	9	8.834	5.886	47262	32	10.355	10.983	47336	10	13.786	14.794	47410	36	16.506	18.915	47484	28	0.428	22.142
47189	14	9.295	5.816	47263	8	10.824	10.066	47337	8	14.504	14.520	47411	8	16.574	18.638	47485	16	0.724	22.773
47190*	60	10.606	5.257	47264	40	10.992	10.246	47338	8	17.348	14.962	47412	12	18.514	18.754	47486*	60	2.350	22.826
47191	10	16.948	5.062	47265	8	12.074	10.934	47339	32	19.534	14.816	47413	11	18.752	18.038	47487	38	2.516	22.228
47192	36	18.665	5.628	47266	12	14.042	10.006	47340	17	21.442	14.666	47414	10	20.127	18.162	47488	12	3.354	22.434
47193	26	20.674	5.396	47267	12	14.326	10.241	47341	12	24.244	14.792	47415	16	21.054	18.602	47489	12	5.606	22.278
47194	42	21.346	5.216	47268	12	15.257	10.288	47342	12	0.274	15.994	47416	14	21.748	18.415	47490	14	6.414	22.286
47195*	50	21.595	5.700	47269	8	19.916	10.075	47343	18	0.619	15.285	47417*	74	21.902	18.657	47491	8	7.567	22.645
47196	8	21.804	5.464	47270	30	20.092	10.716	47344	8	1.084	15.625	47418	21	24.063	18.236	47492*	56	9.599	22.484
47197	9	23.844	5.151	47271	20	20.280	10.435	47345	9	1.552	15.792	47419	12	24.432	18.468	47493	10	9.657	22.645
47198	11	24.552	5.777	47272	8	20.297	10.818	47346	42	2.665	15.916	47420	16	25.064	18.294	47494	15	10.900	22.628
47199	26	25.474	5.068	47273	22	20.458	10.035	47347	22	3.609	15.630	47421	14	0.556	19.014	47495	26	12.545	22.041
47200	8	25.858	5.586	47274	24	23.400	10.915	47348	14	5.256	15.252	47422	24	0.640	19.164	47496	28	13.278	22.074
47201	8	0.666	6.995	47275	16	1.564	11.692	47349	38	7.424	15.044	47423	13	4.164	19.174	47497	8	14.268	22.584
47202*	76	5.143	6.654	47276	10	5.234	11.159	47350	12	10.334	15.628	47424	9	4.764	19.336	47498	8	15.088	20.614
47203	32	8.281	6.626	47277	12	5.626	11.152	47351	14	13.346	15.056	47425*	40	5.580	19.235	47499	36	17.135	22.054
47204	16	12.868	6.806	47278	8	7.384	11.854	47352	14	13.757	15.380	47426	24	7.636	19.934	47500	11	17.995	22.366
47205	8	17.233	6.983	47279	36	9.406	11.772	47353	8	14.214	15.578	47427	8	11.266	19.746	47501	12	18.626	22.834
47206	36	17.698	6.336	47280	32	9.876	11.612	47354	18	14.234	15.092	47428	14	12.931	19.221	47502	32	19.899	22.375
47207	14	18.936	6.756	47281	12	12.134	11.660	47355	18	14.952	15.653	47429	10	15.294	19.896	47503	24	20.164	22.580
47208	14	19.732	6.355	47282	21	12.386	11.584	47356	18	15.736	15.094	47430	20	16.240	19.364	47504	30	20.647	22.036
47209	9	20.439	6.752	47283	34	13.356	11.939	47357	8	16.434	15.396	47431	17	16.407	19.676	47505	8	20.825	22.126
47210	12	22.473	6.952	47284	8	13.514	11.344	47358	8	17.918	15.427	47432	12	16.569	19.553	47506	12	21.432	22.614
47211	8	1.066	7.386	47285	20	14.142	11.659	47359	14	20.994	15.886	47433	10	19.098	19.693	47507*	62	21.816	22.427
47212	8	2.134	7.916	47286	12	16.696	11.145	47360	8	23.244	15.885	47434	14	19.320	19.543	47508	8	25.242	22.792
47213	21	2.797	7.002	47287	20	17.651	11.134	47361	20	0.636	16.776	47435	16	19.335	19.544	47509	10	1.945	23.822
47214	26	5.374	7.256	47288	12	21.533	11.166	47362	13	0.636	16.445	47436	22	19.344	19.693	47510	16	4.767	23.145
47215	36	8.516	7.935	47289	14	21.883	11.030	47363	21	1.149	16.857	47437	9	19.904	19.772	47511	12	4.982	23.178
47216	36	8.646	7.491	47290	12	23.731	11.249	47364	8	3.838	16.198	47438	22	20.398	19.830	47512	12	6.784	23.204
47217	12	8.766	7.997	47291	12	24.653	11.826	47365	8	7.454	16.334	47439	8	20.554	19.546	47513	32	8.516	23.576
47218	11	10.055	7.400	47292	24	0.015	12.106	47366	12	7.925	16.955	47440	12	24.954	19.894	47514	36	11.638	23.682
47219	26	11.932	7.815	47293	15	0.013	12.694	47367	14	8.165	16.144	47441	12	0.612	20.114	47515	16	12.603	23.954
47220	9	12.335	7.875	47294	36	4.394	12.046	47368	12	10.676	16.376	47442	8	1.163	20.758	47516	14	12.839	23.954
47221	10	13.446	7.227	47295	32	6.248	12.374	47369	48	11.217	16.958	47443	12	1.344	20.624	47517	12	12.856	23.944
47222	13	16.736	7.884	47296	12	7.536	12.918	47370*	88	14.464	16.394	47444	10	2.455	20.474	47518	30	13.596	23.141
47223	42	17.004	7.951	47297	16	10.432	12.905	47371	14	16.865	16.665	47445	22	4.390	20.364	47519	10	13.966	23.862
47224	20	20.005	7.382	47298	14	12.044	12.784	47372	53	17.593	16.954	47446	22	4.794	20.916	47520	10	16.194	23.042
47225	16	21.087	7.783	47299	32	14.700	12.374	47373	8	18.668	16.475	47447	11	5.283	20.911	47521	12	16.270	23.139
47226	8	21.500	7.968	47300	28	17.314	12.754	47374	24	18.763	16.736	47448	8	6.305	20.795	47522	8	16.812	23.224
47227	8	22.904	7.425	47301	12	17.684	12.747	47375	16	18.824	16.802	47449	10	7.910	20.447	47523	11	17.494	23.455
47228	62	25.343	7.245	47302	12	18.126	12.406	47376	14	19.139	16.245	47450	25	9.750	20.156	47524	12	17.957	23.206
47229	12	2.956	8.300	47303	38	20.974	12.738	47377	9	21.292	16.978	47451	30	10.237	20.866	47525	14	19.604	23.944
47230	30	2.999	8.580	47304*	44	21.025	12.756	47378	30	21.423	16.354	47452	9	11.794	20.612	47526	17	20.163	23.293
47231	14	6.682	8.036	47305	14	22.436	12.828	47379	10	22.648	16.120	47453	16	16.587	20.064	47527	12	20.514	23.848
47232	18	7.584	8.613	47306	10	24.382	12.735	47380	36	22.656	16.045	47454	32	17.470	20.786	47528	24	20.497	23.357
47233	9	8.976	8.156	47307	10	24.630	12.828	47381	20	23.152	16.004	47455	10	17.576	20.536	47529	10	20.996	23.550
47234	11	11.503	8.918	47308	8	1.637	13.486	47382	30	24.075	16.271	47456	10	17.675	20.878	47530	20	22.064	23.348
47235	12	12.252	8.746	47309*	98	8.585	13.815	47383	12	1.364	17.854	47457	36	18.594	20.154	47531	22	22.418	23.224
47236	40	12.266	8.686	47310	11	9.574	13.242	47384	14	1.498	17.420	47458	8	20.332	20.328	47532	8	22.953	23.264
47237	24	14.448	8.636	47311	38	11.061	13.836	47385	36	2.100	17.767	47459	8	21.859	20.638	47533	18	23.003	23.934
47238	8	16.023	8.274	47312	34	12.014	13.236	47386*	78	9.204	17.997	47460*	58	23.677	20.684	47534	12	24.186	23.544
47239*	56	18.965	8.654	47313	10	12.254	13.114	47387*	66	9.806	17.866	47461	20	24.564	20.996	47535	8	25.183	23.116
47240	8	19.800	8.994	47314	36	14.207	13.812	47388	10	15.184	17.112	47462	38	25.069	20.366	47536	10	3.504	24.306
47241	36	20.272	8.708	47315	20	14.218	13.264	47389	8	16.884	17.706	47463	9	1.036	21.328	47537	17	4.004	24.444
47242	8	22.206	8.892	47316*	68	14.268	13.176	47390	36	18.548	17.096	47464	12	2.944	21.908	47538*	46	5.394	24.495
47243	10	23.002	8.197	47317	28	15.155	13.604	47391	26	18.614	17.120	47465	9	3.702	21.214	47539	16	6.948	24.596
47244	10	23.344	8.646	47318	14	15.462	13.504	47392	8	18.752	17.374	47466	15	6.026	21.596	47540	32	7.494	24.525
47245	32	25.354	8.844	47319	9	15.													



47553	12	24.728	24.120	47624	8	18.794	0.872	47698	8	21.336	2.132	47772	12	18.033	5.746	47846	8	22.985	7.868
47554	16	25.352	24.306	47625	36	18.872	0.380	47699	13	21.516	2.136	47773	32	18.944	5.588	47847	8	23.073	7.094
47555	9	4.744	25.478	47626	23	19.496	0.548	47700	32	25.120	2.998	47774	9	19.572	5.537	47848*	48	23.229	7.296
47556	20	4.742	25.134	47627	9	20.645	0.669	47701	14	0.660	3.955	47775	15	20.000	5.140	47849	9	24.000	7.889
47557	16	5.696	25.906	47628	8	20.734	0.125	47702	8	2.203	3.372	47776*	43	21.152	5.998	47850	8	24.984	7.056
47558	12	6.074	25.917	47629*	42	20.907	0.610	47703*	67	3.100	3.161	47777	11	22.542	5.816	47851	16	0.550	8.435
47559	8	8.900	25.754	47630	8	23.988	0.324	47704	44	3.764	3.852	47778	8	22.553	5.892	47852	12	0.897	8.882
47560	38	8.912	25.502	47631	10	24.130	0.962	47705	8	3.810	3.847	47779	10	24.276	5.221	47853	8	1.937	8.239
47561	36	9.310	25.044	47632	8	24.954	0.970	47706	8	5.264	3.283	47780	8	24.732	5.800	47854	8	2.569	8.255
47562	34	9.975	25.443	47633	8	24.966	0.958	47707	9	6.016	3.996	47781	16	24.816	5.535	47855	9	4.002	8.648
47563	12	12.332	25.744	47634	8	0.372	1.133	47708	8	6.573	3.630	47782	41	24.954	5.065	47856	11	4.310	8.012
47564	72	13.194	25.196	47635	8	1.172	1.387	47709	13	8.322	3.606	47783	39	25.354	5.934	47857	9	5.530	8.183
47565	36	14.718	25.064	47636	8	1.699	1.894	47710	8	8.912	3.239	47784	8	2.943	6.136	47858	8	5.539	8.640
47566	8	15.106	25.517	47637	27	2.326	1.024	47711	8	11.644	3.695	47785	24	4.207	6.830	47859	8	5.802	8.006
47567	17	15.882	25.676	47638*	47	3.439	1.894	47712	8	15.210	3.238	47786	8	5.056	6.118	47860	8	7.448	8.266
47568	22	16.050	25.236	47639	11	3.578	1.958	47713	24	15.300	3.639	47787	10	5.285	6.431	47861	12	7.484	8.510
47569	8	16.652	25.638	47640	26	5.154	1.936	47714	10	15.744	3.136	47788	8	7.398	6.458	47862	11	7.946	8.408
47570	14	16.796	25.214	47641	8	5.364	1.194	47715	8	16.099	3.876	47789	9	7.658	6.465	47863	14	10.234	8.101
47571	8	17.877	25.013	47642	12	6.754	1.375	47716	8	17.066	3.461	47790	17	8.016	6.290	47864	10	11.056	8.723
47572	22	17.824	25.366	47643	8	7.206	1.282	47717	15	21.594	3.536	47791	8	8.565	6.597	47865	10	13.284	8.030
47573	11	18.594	25.086	47644	8	8.240	1.492	47718	31	21.616	3.187	47792	11	8.736	6.408	47866	12	13.448	8.266
47574	16	18.738	25.356	47645	8	8.800	1.246	47719	10	21.814	3.800	47793	8	8.760	6.794	47867	8	13.676	8.836
47575	12	21.044	25.625	47646	10	8.916	1.014	47720	10	22.029	3.374	47794	9	8.950	6.472	47868	10	15.758	8.172
47576	8	23.124	25.188	47647	8	9.490	1.196	47721	10	22.112	3.756	47795	22	9.074	6.606	47869	9	15.764	8.168
47577	34	25.834	25.405	47648	10	10.584	1.230	47722	8	22.627	3.720	47796	8	10.382	6.140	47870	25	18.880	8.200
				47649	8	10.840	1.622	47723	8	22.872	3.612	47797	8	11.195	6.997	47871	10	20.136	8.258
				47650	10	12.691	1.637	47724	11	23.599	3.055	47798	8	13.126	6.713	47872	24	20.441	8.904
				47651	12	12.784	1.299	47725	8	25.936	3.723	47799	8	15.931	6.466	47873	14	20.520	8.134
				47652	24	13.168	1.822	47726	10	1.494	4.552	47800	36	16.160	6.226	47874	30	22.085	8.006
				47653	34	13.849	1.002	47727	9	2.487	4.972	47801	9	16.330	6.846	47875	12	22.265	8.912
				47654	8	14.095	1.974	47728	8	2.540	4.071	47802	8	17.352	6.938	47876	24	23.781	8.742
				47655	32	14.106	1.400	47729	8	2.604	4.085	47803	13	17.474	6.400	47877	29	23.799	8.004
				47656	19	14.618	1.242	47730	12	4.168	4.715	47804	17	18.266	6.904	47878	16	24.064	8.734
				47657	13	14.944	1.752	47731	16	6.342	4.978	47805	31	18.939	6.598	47879	8	24.074	8.230
				47658	12	18.920	1.948	47732	8	9.348	4.415	47806	11	19.174	6.465	47880	8	2.046	9.466
				47659	8	20.539	1.480	47733	8	9.760	4.269	47807	8	19.944	6.254	47881	23	2.911	9.058
				47660	8	20.714	1.879	47734	8	10.102	4.856	47808	10	20.364	6.691	47882	9	3.535	9.168
				47661*	56	21.292	1.352	47735	9	10.172	4.902	47809	16	21.234	6.280	47883	8	3.675	9.188
				47662	24	21.424	1.378	47736	8	10.203	4.692	47810	16	21.329	6.160	47884	8	4.270	9.588
				47663	17	21.444	1.048	47737	8	10.484	4.238	47811	23	22.326	6.280	47885	8	4.702	9.792
				47664	10	23.286	1.157	47738	8	13.542	4.752	47812	21	22.399	6.618	47886	12	5.104	9.940
				47665	8	23.306	1.334	47739	24	14.067	4.278	47813	27	23.358	6.490	47887	8	5.652	9.696
				47666	8	23.694	1.682	47740	16	15.536	4.658	47814	8	23.566	6.858	47888	10	5.706	9.924
				47667	8	25.237	1.702	47741	8	15.565	4.334	47815	10	24.672	6.115	47889	28	8.605	9.968
				47668	8	25.287	1.206	47742	24	16.108	4.456	47816	12	0.008	7.197	47890	13	8.863	9.662
				47669	43	25.742	1.477	47743	8	18.622	4.744	47817	8	0.448	7.664	47891	11	9.728	9.650
				47670	8	25.975	1.630	47744	18	19.916	4.908	47818	8	1.633	7.480	47892	8	10.484	9.914
				47671	9	2.898	2.498	47745	29	20.425	4.050	47819*	55	2.882	7.463	47893	25	12.348	9.108
				47672	10	3.565	2.449	47746	8	20.518	4.668	47820	8	3.048	7.954	47894	8	12.382	9.585
				47673	8	4.108	2.700	47747	8	20.774	4.172	47821	8	3.600	7.426	47895	14	12.616	9.280
				47674	22	4.797	2.034	47748	10	23.074	4.469	47822	8	6.242	7.942	47896	8	13.616	9.937
				47675	10	6.196	2.587	47749*	48	23.505	4.762	47823	10	7.346	7.173	47897	8	13.708	9.984
				47676	16	6.784	2.803	47750	9	24.870	4.353	47824*	67	7.940	7.480	47898	8	14.066	9.571
				47677	8	6.900	2.386	47751	8	1.975	5.334	47825	8	7.944	7.821	47899	8	14.426	9.965
				47678	8	7.396	2.498	47752	18	2.995	5.284	47826	8	8.054	7.424	47900	8	14.844	9.001
				47679*	49	7.496	2.547	47753	8	3.380	5.794	47827	8	9.072	7.890	47901	8	15.138	9.271
				47680	10	7.738	2.589	47754	9	4.444	5.066	47828	8	9.300	7.444	47902	12	15.460	9.490
				47681	8	10.100	2.618	47755	15	6.084	5.518	47829	14	9.637	7.381	47903	13	17.058	9.630
				47682	12	10.536	2.935	47756	21	6.308	5.040	47830	28	9.716	7.446	47904	8	17.214	9.188
				47683	10	12.138	2.026	47757	27	6.560	5.878	47831	8	10.864	7.772	47905	21	17.218	9.688
				47684	8	12.504	2.114	47758	8	6.824	5.094	47832	10	10.996	7.000	47906	8	17.825	9.694
				47685	15	13.056	2.453	47759	22	7.218	5.766	47833	24	13.774	7.126	47907	29	17.962	9.442
				47686	16	14.590	2.899	47760	11	7.372	5.930	47834	8	14.837	7.092	47908	8	18.176	9.550
				47687	8	14.916	2.003	47761	11	7.607	5.074	47835	8	15.115	7.826	47909	24	18.904	9.246
				47688	8	15.285	2.777	47762	16	8.830	5.356	47836	8	15.140	7.567	47910	8	20.254	9.340
				47689	20	15.427	2.252	47763	8	9.656	5.902	47837	8	15.494	7.714	47911	15	20.476	9.604
				47690	22	15.806	2.157	47764	9	9.935	5.125	47838	30	17.021	7.358	47912	11	21.970	9.350
				47691	10	16.778	2.313	47765	24	9.970	5.384	47839	8	17.576	7.882	47913	8	22.674	9.254
				47692	8	17.424	2.640	47766	8	11.229	5.461	47840	28	18.594	7.300	47914	40		



47920	8	2.576	10.506	47994	14	2.050	13.682	48068	24	8.888	16.806	48142	8	24.906	18.891	48216	12	1.066	21.463
47921	8	3.681	10.246	47995	8	2.234	13.044	48069	11	9.689	16.430	48143	8	1.330	19.272	48217	20	2.249	21.216
47922	11	4.311	10.030	47996	15	7.092	13.524	48070	20	11.616	16.472	48144	8	2.221	19.134	48218	36	2.914	21.236
47923	11	4.430	10.344	47997	45	8.774	13.502	48071	8	12.417	16.920	48145	10	3.735	19.044	48219	8	3.516	21.850
47924	9	4.971	10.485	47998	32	9.024	13.781	48072	8	12.841	16.688	48146	8	4.619	19.538	48220	10	5.348	21.426
47925	15	7.189	10.788	47999	31	9.374	13.922	48073	8	13.144	16.846	48147	10	5.690	19.187	48221	10	5.566	21.324
47926	30	7.819	10.712	48000	8	10.264	13.716	48074	23	13.155	16.574	48148	8	6.313	19.703	48222	10	5.786	21.776
47927*	37	9.411	10.151	48001	8	10.496	13.498	48075	8	13.518	16.213	48149	8	7.462	19.006	48223	8	7.454	21.628
47928	24	10.396	10.516	48002	12	11.750	13.920	48076	8	14.550	16.680	48150	31	8.286	19.834	48224	9	7.922	21.830
47929	10	10.364	10.274	48003	34	11.926	13.574	48077	8	17.286	16.450	48151	15	10.898	19.094	48225	12	8.719	21.176
47930	22	10.582	10.712	48004	13	12.484	13.435	48078	11	18.505	16.491	48152	10	11.828	19.770	48226	8	9.121	21.928
47931	27	13.894	10.226	48005*	72	13.500	13.767	48079	10	22.036	16.046	48153	22	12.468	19.887	48227	12	9.516	21.733
47932	26	14.500	10.234	48006	8	14.350	13.136	48080	8	22.385	16.316	48154	8	13.921	19.944	48228	10	10.230	21.130
47933	13	16.050	10.340	48007	15	15.296	13.149	48081	40	22.533	16.136	48155	8	13.925	19.604	48229	33	10.246	21.658
47934	16	16.136	10.384	48008	10	16.872	13.266	48082	23	23.559	16.974	48156*	72	15.050	19.429	48230	8	10.328	21.999
47935	14	17.758	10.246	48009	25	17.934	13.752	48083	21	23.774	16.052	48157	8	16.380	19.605	48231	16	10.816	21.649
47936	8	18.958	10.629	48010	20	18.926	13.160	48084	8	24.226	16.968	48158	20	16.406	19.524	48232	28	11.842	21.571
47937	18	19.061	10.324	48011	17	20.490	13.475	48085	12	24.314	16.126	48159	10	16.914	19.801	48233	23	14.238	21.580
47938	8	19.079	10.964	48012	8	20.876	13.820	48086	8	24.484	16.494	48160	12	17.976	19.752	48234	8	14.505	21.340
47939	8	19.084	10.285	48013	8	22.337	13.898	48087	8	24.764	16.484	48161	15	18.534	19.818	48235	16	15.325	21.219
47940	21	19.234	10.434	48014	8	23.175	13.766	48088	27	24.912	16.817	48162	19	19.174	19.776	48236	8	16.828	21.438
47941	8	19.649	10.164	48015	8	25.904	13.698	48089	8	25.218	16.354	48163	8	19.454	19.163	48237	9	16.970	21.080
47942	17	21.164	10.846	48016	8	5.686	14.602	48090	15	25.775	16.001	48164	15	19.536	19.482	48238	8	17.585	21.970
47943	12	21.722	10.220	48017	8	6.626	14.557	48091	8	0.125	17.915	48165	8	19.856	19.336	48239	8	17.752	21.962
47944	11	21.984	10.324	48018	8	7.912	14.921	48092	8	0.180	17.151	48166	20	20.186	19.791	48240	8	17.956	21.198
47945	14	23.248	10.781	48019	17	8.522	14.564	48093	8	1.688	17.945	48167	13	21.092	19.878	48241	8	18.142	21.422
47946	22	23.958	10.300	48020	8	8.726	14.549	48094	8	1.936	17.681	48168	8	21.685	19.755	48242	8	19.199	21.990
47947	36	25.973	10.596	48021	8	8.994	14.238	48095	10	4.094	17.890	48169	11	21.854	19.790	48243	12	19.534	21.666
47948	23	0.980	11.150	48022	8	9.568	14.219	48096	34	5.853	17.347	48170	9	22.444	19.140	48244	8	22.350	21.908
47949	12	1.314	11.480	48023	9	11.077	14.839	48097	12	8.744	17.754	48171	10	24.584	19.133	48245	39	24.426	21.314
47950	16	4.366	11.657	48024	10	11.926	14.394	48098	29	10.340	17.026	48172	10	24.844	19.059	48246	12	25.366	21.394
47951	8	6.835	11.906	48025	10	14.928	14.011	48099	8	13.741	17.924	48173	8	25.226	19.952	48247	9	25.850	21.437
47952	8	8.528	11.200	48026	8	15.492	14.146	48100	10	15.768	17.750	48174	8	25.942	19.304	48248	8	0.654	22.872
47953	9	10.883	11.390	48027	10	16.038	14.196	48101	25	17.168	17.418	48175	8	0.482	20.876	48249	8	1.786	22.576
47954	19	11.160	11.578	48028	17	18.076	14.694	48102	9	17.794	17.332	48176*	57	1.358	20.914	48250	8	5.028	22.386
47955*	27	11.879	11.238	48029	8	19.163	14.972	48103	8	18.242	17.454	48177	8	2.570	20.086	48251	11	6.671	22.640
47956	23	14.581	11.472	48030	12	19.736	14.896	48104	8	18.836	17.694	48178	8	2.630	20.108	48252	8	6.842	22.750
47957	8	16.750	11.301	48031	18	25.075	14.140	48105	20	19.145	17.621	48179	36	2.748	20.582	48253	11	7.611	22.604
47958	8	18.474	11.238	48032	8	0.640	15.928	48106	8	20.288	17.074	48180	8	3.526	20.674	48254	8	8.036	22.637
47959	10	19.810	11.711	48033	8	1.863	15.014	48107	27	21.642	17.683	48181	22	4.240	20.396	48255	21	8.584	22.203
47960	8	20.956	11.513	48034	29	3.947	15.656	48108	14	23.624	17.596	48182	13	4.404	20.256	48256	11	11.074	22.060
47961	28	22.086	11.965	48035	8	4.551	15.954	48109	10	23.716	17.947	48183	9	5.036	20.481	48257	8	12.316	22.590
47962	8	24.316	11.905	48036	21	5.564	15.980	48110	8	24.686	17.144	48184	9	5.067	20.111	48258	17	12.715	22.138
47963	21	24.958	11.379	48037	12	8.474	15.418	48111	15	25.431	17.691	48185	8	5.735	20.033	48259	10	13.052	22.084
47964	36	25.594	11.164	48038	12	9.882	15.650	48112	18	25.542	17.464	48186*	38	5.776	20.805	48260	10	13.770	22.980
47965	8	1.985	12.962	48039	14	10.284	15.114	48113	8	25.656	17.324	48187	8	7.026	20.280	48261	9	13.774	22.060
47966	9	2.244	12.050	48040	15	10.992	15.038	48114	8	0.708	18.674	48188*	43	7.208	20.620	48262	8	14.676	22.018
47967	19	3.990	12.398	48041	9	12.663	15.544	48115	8	1.050	18.252	48189	8	7.367	20.754	48263	13	16.249	22.676
47968	14	5.347	12.656	48042	12	14.084	15.944	48116	41	1.367	18.166	48190*	117	7.520	20.044	48264	8	16.807	22.229
47969	28	6.614	12.902	48043*	80	14.465	15.179	48117	16	1.718	18.464	48191	25	9.544	20.230	48265	8	17.124	22.334
47970	8	7.324	12.698	48044*	54	14.817	15.232	48118	10	2.092	18.694	48192	11	9.850	20.014	48266*	57	17.364	22.566
47971	16	8.121	12.588	48045	8	17.262	15.282	48119	12	2.724	18.508	48193	18	11.140	20.822	48267	18	17.450	22.647
47972	8	8.557	12.239	48046*	55	18.221	15.782	48120	8	3.247	18.064	48194	8	11.443	20.502	48268	21	17.504	22.386
47973	8	10.746	12.722	48047	25	18.824	15.976	48121	8	4.086	18.464	48195*	39	13.244	20.254	48269	23	17.916	22.036
47974	8	11.284	12.199	48048	8	20.113	15.410	48122	8	5.847	18.056	48196	10	16.305	20.759	48270	8	19.565	22.834
47975	9	11.910	12.799	48049	19	20.973	15.950	48123	8	6.826	18.224	48197	8	17.342	20.660	48271	16	20.000	22.024
47976	10	11.973	12.172	48050	8	21.398	15.242	48124	10	8.726	18.908	48198	8	18.850	20.650	48272	8	20.225	22.570
47977	18	12.728	12.880	48051	9	21.917	15.690	48125	26	8.938	18.434	48199	10	20.232	20.584	48273	8	20.358	22.034
47978	10	15.656	12.783	48052	8	22.797	15.148	48126	10	13.044	18.794	48200	8	20.604	20.734	48274	8	20.764	22.469
47979	8	18.485	12.248	48053	8	24.110	15.139	48127	8	13.414	18.696	48201	8	20.907	20.166	48275	8	21.040	22.441
47980	8	18.530	12.776	48054	8	24.136	15.178	48128	29	14.630	18.039	48202	8	21.472	20.710	48276	10	25.075	22.250
47981	8	21.636	12.660	48055	10	24.148	15.764	48129	8	14.637	18.320	48203	18	22.094	20.426	48277	10	25.844	22.891
47982	11	22.727	12.585	48056	8	24.878	15.276	4											



48290	9	11.237	23.295	48364	14	11.116	25.166	48430*	60	3.304	1.724	48504	9	24.450	4.029	48578	13	8.749	8.366
48291*	33	11.254	23.314	48365	22	11.944	25.390	48431	9	3.539	1.880	48505*	56	1.078	5.016	48579	8	8.761	8.410
48292*	46	11.356	23.460	48366	19	12.148	25.124	48432	13	4.700	1.010	48506	13	1.852	5.472	48580	20	8.819	8.910
48293	14	12.042	23.732	48367	8	12.156	25.800	48433	9	5.372	1.070	48507	20	2.396	5.786	48581	8	9.332	8.769
48294	19	12.541	23.460	48368	8	13.194	25.832	48434	19	6.210	1.890	48508	44	2.530	5.314	48582	8	10.678	8.002
48295	12	12.620	23.456	48369	8	13.265	25.916	48435	9	6.668	1.790	48509	19	4.243	5.097	48583	20	13.811	8.632
48296	8	12.772	23.163	48370	8	13.904	25.276	48436	8	7.394	1.967	48510	19	4.868	5.951	48584	8	13.927	8.650
48297	8	14.062	23.912	48371	9	14.272	25.789	48437	13	7.829	1.042	48511	9	5.036	5.054	48585	8	14.194	8.509
48298	10	14.264	23.862	48372	10	14.375	25.526	48438	26	14.480	1.584	48512	8	5.197	5.684	48586	19	14.281	8.376
48299	14	14.703	23.422	48373	14	15.254	25.817	48439	44	16.037	1.827	48513	11	6.854	5.444	48587	8	15.444	8.011
48300	11	16.334	23.592	48374	14	15.276	25.856	48440	20	16.062	1.652	48514	9	8.765	5.687	48588	46	17.007	8.725
48301	8	17.104	23.060	48375	8	15.629	25.130	48441*	60	16.168	1.810	48515	36	8.842	5.890	48589	31	17.137	8.778
48302	18	18.706	23.650	48376	44	15.742	25.103	48442	8	16.507	1.948	48516	10	9.426	5.194	48590	8	17.867	8.336
48303	8	19.154	23.688	48377	24	17.794	25.953	48443	9	16.882	1.382	48517	13	12.332	5.712	48591	29	20.051	8.300
48304	12	19.510	23.248	48378	25	18.054	25.099	48444	37	17.755	1.513	48518	18	12.770	5.740	48592	12	22.126	8.051
48305	8	20.244	23.380	48379	9	19.138	25.394	48445	8	18.434	1.618	48519	37	17.238	5.712	48593	8	22.852	8.198
48306	8	21.099	23.428	48380	23	19.632	25.050	48446	9	19.398	1.488	48520	8	18.200	5.088	48594	17	25.250	8.906
48307	8	22.504	23.559	48381	10	21.729	25.711	48447	23	19.539	1.168	48521	8	18.956	5.294	48595	41	2.612	9.972
48308	8	22.676	23.856	48382	12	23.985	25.878	48448*	60	20.064	1.018	48522	20	19.326	5.340	48596	9	3.553	9.985
48309	8	23.448	23.932					48449	8	20.195	1.600	48523	16	19.474	5.880	48597	11	4.058	9.274
48310	10	23.890	23.086					48450	29	20.452	1.198	48524	11	0.122	6.070	48598	23	4.390	9.890
48311	9	24.136	23.710					48451	25	20.504	1.986	48525	27	0.940	6.740	48599	13	6.116	9.987
48312	14	24.240	23.774					48452	8	22.318	1.680	48526	14	2.254	6.367	48600	28	6.270	9.254
48313	14	25.214	23.765					48453*	45	22.594	1.709	48527	10	2.314	6.049	48601	8	7.678	9.322
48314	8	25.666	23.692					48454	11	23.152	1.801	48528	44	2.931	6.181	48602	12	7.788	9.658
48315	39	25.960	23.950					48455	13	25.716	1.627	48529	25	3.596	6.574	48603	41	8.028	9.407
48316	19	0.720	24.170					48456	20	4.856	2.051	48530	9	8.476	6.382	48604	12	8.244	9.630
48317	10	2.449	24.340					48457	14	7.168	2.886	48531*	80	11.490	6.751	48605	42	11.528	9.100
48318	17	3.072	24.518					48458	33	14.052	2.839	48532	8	13.561	6.285	48606	35	12.427	9.269
48319	28	4.141	24.175					48459	21	15.210	2.392	48533	27	13.740	6.397	48607	8	13.427	9.492
48320	12	4.370	24.696					48460	21	20.622	2.768	48534	9	16.478	6.872	48608	10	14.190	9.191
48321	8	4.695	24.864					48461	41	20.912	2.608	48535	28	17.425	6.065	48609	14	17.120	9.370
48322	21	5.778	24.218					48462	14	21.322	2.250	48536	11	20.502	6.100	48610	16	17.439	9.204
48323	8	6.606	24.512					48463	8	21.654	2.882	48537	10	20.548	6.076	48611	15	17.668	9.442
48324*	42	6.683	24.139					48464	15	22.478	2.618	48538	27	20.936	6.770	48612	8	18.320	9.694
48325	8	7.419	24.238					48465	12	22.544	2.646	48539	8	21.356	6.968	48613	44	18.990	9.166
48326	10	7.833	24.121					48466	12	22.656	2.758	48540	56	22.995	6.295	48614	9	19.794	9.990
48327	24	7.900	24.624					48467	8	23.559	2.121	48541	8	23.476	6.443	48615	43	21.187	9.615
48328	13	8.248	24.510					48468	8	24.495	2.367	48542	8	23.280	6.088	48616	9	21.213	9.850
48329	8	8.625	24.956					48469	19	25.072	2.718	48543	17	23.814	6.710	48617	16	21.528	9.180
48330	10	9.877	24.186					48470	8	25.852	2.817	48544	8	24.356	6.334	48618	8	23.688	9.010
48331	20	9.996	24.716					48471	11	1.168	3.309	48545	8	0.658	7.350	48619	16	23.690	9.124
48332	8	10.022	24.248					48472	37	2.690	3.245	48546*	60	0.810	7.549	48620	8	23.816	9.932
48333	9	10.168	24.502					48473	8	3.504	3.969	48547	8	2.566	7.304	48621	8	24.148	9.726
48334	19	10.176	24.426					48474	17	4.886	3.086	48548	14	4.922	7.575	48622	8	1.532	10.078
48335	10	11.565	24.352					48475	8	5.395	3.526	48549	8	7.910	7.434	48623	19	1.554	10.550
48336	8	11.574	24.902					48476	22	10.966	3.140	48550	8	7.914	7.483	48624	37	3.569	10.840
48337	8	13.163	24.834					48477	8	14.024	3.563	48551	19	12.354	7.210	48625	20	4.520	10.700
48338	15	14.294	24.106					48478	20	17.706	3.984	48552	9	13.228	7.428	48626	8	9.326	10.254
48339*	40	16.628	24.265					48479	10	18.605	3.971	48553	8	13.808	7.550	48627	8	9.510	10.922
48340	8	17.085	24.625					48480	23	18.720	3.742	48554	10	14.774	7.935	48628	8	11.206	10.766
48341	9	17.626	24.144					48481	9	19.452	3.829	48555	45	15.752	7.882	48629	9	13.890	10.527
48342	8	18.613	24.372					48482	13	22.621	3.154	48556	32	16.350	7.228	48630	8	17.354	10.522
48343	21	19.212	24.126					48483	10	23.032	3.360	48557	8	16.522	7.221	48631	14	17.873	10.930
48344	8	19.220	24.299					48484	10	0.649	4.723	48558	16	19.924	7.380	48632	9	18.262	10.382
48345	8	19.256	24.774					48485	12	2.444	4.600	48559	60	20.542	7.448	48633	15	18.722	10.266
48346	10	19.262	24.208					48486	10	4.290	4.241	48560	13	20.560	7.869	48634	8	18.819	10.470
48347*	44	19.831	24.474					48487	27	5.340	4.832	48561	43	22.430	7.198	48635	16	19.193	10.130
48348	8	21.064	24.736					48488	31	6.027	4.368	48562	21	22.469	7.178	48636	11	22.141	10.804
48349	13	21.819	24.098					48489	36	8.100	4.388	48563	18	23.250	7.050	48637	14	22.461	10.464
48350	8	23.121	24.082					48490	8	9.760	4.701	48564	8	23.354	7.939	48638	13	0.845	11.034
48351	8	23.778	24.918					48491	26	11.082	4.900	48565	9	23.534	7.876	48639	19	2.557	11.628
48352	9	25.906	24.320					48492	8	13.250	4.884	48566	9	23.856	7.020	48640	38	3.191	11.411
48353	10	25.960	24.052					48493	8	14.940	4.238	48567	22	25.105	7.814	48641	8	4.276	11.232
48354	8	0.854	25.424					48494	11	16.178	4.460	48568	21	25.309	7.146	48642	18	5.127	11.053
48355	24	3.566	25.614					48495	13	17.044	4.760	48569	9	0.570	8.122	48643	8	5.993	11.691
48356	25	4.376	25.724					48496	11	17.184	4.897	48570	20	1.372	8.991	48644	10	6.719	11.426
48357	9	6.563	25.999					48497	14	18.222	4.328	48571	35	1.385	8.256	48645	8	7.836	11.350
48358	16	8.123	25.434					48498	13	18.978									



48652	13	14.808	11.576	48726	16	6.490	14.764	48800	31	2.530	17.064	48874	22	13.501	19.320	48948	9	23.900	21.360
48653	8	14.842	11.632	48727	51	9.612	14.444	48801	21	3.053	17.938	48875	21	14.140	19.892	48949*	80	24.408	21.455
48654	23	15.871	11.622	48728	8	11.361	14.050	48802	23	3.161	17.710	48876	16	14.758	19.984	48950	8	24.886	21.434
48655	18	15.926	11.063	48729	8	11.630	14.314	48803	8	3.280	17.570	48877	11	16.402	19.088	48951	8	2.100	22.764
48656	9	17.124	11.744	48730	20	12.832	14.080	48804	28	4.238	17.020	48878	8	16.877	19.007	48952	11	2.714	22.494
48657	26	17.466	11.578	48731	8	12.848	14.106	48805	8	6.462	17.279	48879	25	18.092	19.530	48953	8	4.177	22.682
48658	8	19.968	11.549	48732	12	13.935	14.806	48806	8	7.610	17.930	48880	14	19.501	19.540	48954	10	4.648	22.672
48659	27	20.402	11.470	48733	9	14.274	14.830	48807	31	7.950	17.822	48881	11	19.690	19.806	48955	16	5.172	22.180
48660	9	20.888	11.770	48734	38	15.958	14.787	48808	41	10.693	17.378	48882	8	19.860	19.566	48956	8	6.478	22.728
48661	9	21.673	11.950	48735	8	16.886	14.121	48809	12	10.808	17.935	48883	19	20.406	19.460	48957	10	7.190	22.703
48662	16	21.949	11.290	48736	12	21.150	14.854	48810	39	11.059	17.922	48884	12	22.852	19.032	48958	14	8.008	22.050
48663	8	22.486	11.722	48737	9	22.150	14.630	48811	19	11.818	17.462	48885	12	23.053	19.788	48959	8	8.372	22.320
48664	9	24.173	11.446	48738	10	24.236	14.153	48812*	55	14.636	17.107	48886	8	24.024	19.778	48960	15	9.802	22.801
48665	12	24.218	11.414	48739	9	24.360	14.930	48813	30	14.718	17.250	48887	10	24.183	19.027	48961	15	9.868	22.750
48666	12	0.331	12.838	48740	8	25.362	14.630	48814	8	15.309	17.350	48888	8	24.572	19.457	48962	8	10.490	22.658
48667	9	0.574	12.664	48741	11	0.408	15.406	48815	16	16.150	17.635	48889	8	25.100	19.496	48963	12	12.110	22.140
48668	18	0.625	12.528	48742	8	0.819	15.843	48816	10	20.829	17.403	48890	12	25.860	19.400	48964	46	13.332	22.293
48669	8	1.913	12.548	48743	10	2.493	15.520	48817	12	21.237	17.318	48891	15	0.731	20.307	48965	44	14.118	22.566
48670	11	1.924	12.156	48744	8	2.914	15.396	48818	11	21.356	17.507	48892	40	1.510	20.510	48966	13	15.560	22.287
48671	28	2.750	12.318	48745*	62	3.727	15.867	48819*	86	21.665	17.446	48893	8	1.524	20.722	48967	8	15.623	22.328
48672*	77	2.775	12.444	48746	17	3.910	15.447	48820	8	21.726	17.372	48894	8	2.816	20.294	48968	29	16.014	22.484
48673	8	2.970	12.336	48747	16	5.444	15.450	48821	20	24.315	17.784	48895	8	2.854	20.199	48969	8	16.482	22.110
48674	12	3.750	12.085	48748	19	5.478	15.460	48822	22	24.464	17.790	48896	17	3.259	20.447	48970	10	16.912	22.512
48675	8	3.921	12.401	48749	14	5.816	15.396	48823	11	24.754	17.468	48897	17	7.241	20.902	48971	14	17.409	22.506
48676	14	4.457	12.912	48750	17	7.118	15.218	48824	8	0.478	18.951	48898	8	7.863	20.146	48972	8	17.725	22.512
48677	38	4.460	12.702	48751	12	8.170	15.378	48825	19	0.871	18.860	48899	13	8.090	20.966	48973	27	18.183	22.574
48678	9	4.782	12.224	48752	13	8.704	15.260	48826	18	1.086	18.637	48900	8	8.641	20.131	48974	13	18.214	22.596
48679	15	4.792	12.058	48753	38	12.173	15.432	48827	10	1.339	18.199	48901	12	9.100	20.561	48975	8	18.222	22.738
48680	24	5.304	12.767	48754	8	13.418	15.233	48828	30	2.500	18.620	48902	10	9.100	20.498	48976	22	20.896	22.790
48681	15	6.251	12.416	48755	8	13.490	15.405	48829	53	3.654	18.367	48903	11	11.996	20.551	48977	9	20.991	22.399
48682	9	6.769	12.147	48756*	68	16.014	15.940	48830	11	4.047	18.328	48904*	49	12.442	20.980	48978	13	21.920	22.427
48683	22	7.310	12.622	48757	43	17.636	15.199	48831	15	4.211	18.928	48905	16	13.628	20.673	48979	10	24.940	22.449
48684	26	7.387	12.381	48758	8	18.418	15.430	48832	12	4.379	18.452	48906	8	14.362	20.901	48980	8	25.302	22.414
48685	11	7.649	12.573	48759*	41	18.640	15.394	48833	8	4.449	18.742	48907	10	15.295	20.082	48981	8	25.734	22.332
48686	10	8.264	12.765	48760	12	18.956	15.684	48834	8	4.743	18.028	48908	12	17.729	20.686	48982	10	1.780	23.960
48687	18	8.610	12.964	48761	8	19.584	15.380	48835	8	5.678	18.287	48909	30	17.764	20.782	48983	8	3.310	23.937
48688	8	11.265	12.682	48762	17	19.677	15.363	48836	10	5.887	18.218	48910	8	17.769	20.344	48984	9	3.482	23.137
48689	43	13.170	12.472	48763	25	21.110	15.282	48837	26	9.990	18.556	48911	12	18.102	20.484	48985	16	4.152	23.844
48690	8	14.143	12.306	48764	15	21.630	15.111	48838	42	10.577	18.248	48912	19	18.540	20.120	48986	24	8.318	23.296
48691	30	14.932	12.232	48765	11	21.824	15.198	48839	20	11.036	18.344	48913	16	19.090	20.865	48987	19	8.424	23.206
48692	24	15.136	12.183	48766	8	22.142	15.729	48840	13	11.068	18.890	48914	50	19.576	20.760	48988	8	8.496	23.361
48693	10	17.000	12.350	48767*	43	22.848	15.196	48841	11	12.290	18.870	48915	8	19.980	20.391	48989	8	8.782	23.072
48694	9	17.261	12.390	48768	13	23.136	15.302	48842*	74	12.630	18.476	48916	14	23.212	20.852	48990*	53	9.447	23.163
48695	13	18.859	12.774	48769	24	23.829	15.507	48843	54	12.688	18.780	48917	9	24.250	20.660	48991	8	9.788	23.992
48696	43	20.176	12.448	48770	10	24.370	15.990	48844	8	12.768	18.882	48918	9	25.488	20.686	48992	10	11.130	23.904
48697	8	22.123	12.962	48771	12	25.094	15.578	48845	16	13.236	18.714	48919	22	1.654	21.036	48993	13	11.572	23.446
48698	12	23.349	12.762	48772	45	25.147	15.434	48846	8	13.435	18.096	48920	8	1.792	21.086	48994*	15	12.889	23.941
48699	46	23.520	12.940	48773	44	0.146	16.392	48847	31	14.284	18.284	48921	45	2.060	21.561	48995	39	13.084	23.445
48700	9	1.110	13.062	48774	9	1.388	16.204	48848	8	17.719	18.383	48922	9	3.002	21.640	48996	12	15.627	23.110
48701	24	1.727	13.050	48775	24	1.390	16.304	48849	18	19.882	18.400	48923	13	3.483	21.682	48997	9	18.674	23.744
48702	8	3.512	13.948	48776	9	1.762	16.014	48850	14	22.762	18.172	48924	50	4.222	21.750	48998	11	19.264	23.148
48703	8	7.155	13.384	48777	14	1.930	16.375	48851	25	22.960	18.628	48925	15	4.585	21.972	48999	31	19.330	23.828
48704	8	9.211	13.428	48778	8	2.382	16.730	48852	11	23.093	18.650	48926	13	5.440	21.593	49000	14	19.916	23.180
48705	27	10.688	13.712	48779	8	2.978	16.213	48853	14	24.190	18.818	48927	12	6.447	21.575	49001	10	21.140	23.258
48706	15	13.662	13.118	48780	19	3.391	16.248	48854	14	24.900	18.981	48928	10	6.538	21.990	49002	11	22.466	23.422
48707	8	14.380	13.036	48781	12	4.278	16.493	48855	22	25.722	18.266	48929	8	7.301	21.340	49003*	58	22.534	23.849
48708	8	15.464	13.532	48782	17	4.762	16.232	48856	29	0.848	19.216	48930	28	10.459	21.443	49004	8	23.508	23.718
48709	16	16.518	13.538	48783	8	5.066	16.596	48857	17	1.480	19.058	48931	9	10.728	21.563	49005	14	1.883	24.024
48710	39	16.680	13.172	48784	42	5.100	16.950	48858	12	2.212	19.380	48932*	32	12.438	21.008	49006	13	2.858	24.010
48711*	85	16.770	13.249	48785	40	10.160	16.084	48859	11	2.473	19.304	48933	9	12.561	21.114	49007	9	3.552	24.562
48712	17	17.195	13.749	48786	15	11.060	16.890	48860	8	2.532	19.140	48934*	91	13.247	21.060	49008	45	3.603	24.194
48713	8	17.772	13.575	48787	8	13.258	16.387	48861	8	3.570	19.549	48935	12	13.500	21.620	49009	10	3.604	24.296
48714	15	20.246	13.600	48788	9	13.39													



49022	8	12.809	24.546	49113	9	15.790	0.459	49187	14	16.976	3.950	49261	10	19.540	6.710	49335	9	22.613	8.150
49023	10	14.844	24.263	49114	8	16.952	0.750	49188	12	17.031	3.410	49262	10	20.092	6.946	49336	27	23.264	8.556
49024	12	15.620	24.635	49115	15	16.966	0.653	49189	10	17.342	3.894	49263	10	20.948	6.849	49337	8	23.348	8.172
49025	31	16.668	24.414	49116	12	21.834	0.378	49190	32	18.125	3.763	49264	8	21.126	6.236	49338	10	23.388	8.401
49026*	44	17.414	24.214	49117	10	21.925	0.086	49191	27	21.498	3.340	49265	8	22.140	6.285	49339	8	23.418	8.466
49027	12	17.764	24.390	49118	8	22.035	0.234	49192	11	21.499	3.918	49266	8	23.916	6.002	49340	8	23.900	8.026
49028	8	18.351	24.143	49119	8	22.747	0.700	49193	38	22.137	3.425	49267	15	24.226	6.065	49341	11	24.504	8.428
49029	15	19.954	24.118	49120	8	23.812	0.954	49194	13	23.599	3.992	49268*	38	25.007	6.044	49342	11	24.544	8.388
49030	8	19.973	24.108	49121	8	24.600	0.658	49195	8	24.267	3.064	49269	11	25.934	6.718	49343	8	25.249	8.054
49031	20	20.672	24.706	49122	10	25.690	0.496	49196	35	24.916	3.624	49270	38	0.068	7.380	49344	10	1.360	9.288
49032	19	21.140	24.360	49123	9	0.064	1.058	49197	38	25.349	3.077	49271	17	0.108	7.362	49345	8	1.826	9.884
49033	8	21.209	24.662	49124	42	0.144	1.891	49198	8	1.096	4.178	49272	15	0.886	7.224	49346	10	2.916	9.045
49034	41	23.414	24.030	49125	9	0.707	1.975	49199	9	2.037	4.178	49273	8	1.494	7.180	49347	13	4.116	9.504
49035	19	23.999	24.822	49126	12	3.266	1.758	49200	8	6.044	4.334	49274	20	2.753	7.958	49348	8	5.099	9.617
49036	19	24.944	24.783	49127	12	3.725	1.528	49201	8	6.334	4.618	49275	15	2.948	7.282	49349	16	5.522	9.444
49037	8	6.092	25.777	49128	21	6.048	1.622	49202	13	7.467	4.815	49276	28	4.270	7.530	49350	8	5.555	9.072
49038	9	8.244	25.786	49129	8	6.853	1.917	49203*	38	12.697	4.420	49277	14	4.328	7.275	49351	16	6.027	9.530
49039	9	9.260	25.590	49130	27	8.086	1.258	49204	17	12.930	4.362	49278*	68	4.469	7.416	49352	14	9.886	9.740
49040	8	10.372	25.352	49131	8	8.850	1.905	49205	15	15.928	4.830	49279	20	4.930	7.322	49353	8	10.795	9.106
49041	8	10.441	25.276	49132	8	14.142	1.435	49206	23	16.020	4.455	49280	33	4.992	7.649	49354	13	11.078	9.048
49042	37	13.766	25.030	49133	8	14.328	1.802	49207	9	16.760	4.319	49281	9	5.250	7.231	49355	29	15.916	9.275
49043	13	13.782	25.034	49134	8	14.405	1.746	49208	8	17.048	4.071	49282	10	7.164	7.611	49356	10	17.710	9.628
49044	10	15.548	25.271	49135	9	14.936	1.702	49209	25	17.730	4.286	49283	8	7.418	7.554	49357	12	19.606	9.877
49045	19	15.771	25.530	49136	12	15.605	1.044	49210	8	17.896	4.578	49284	38	9.146	7.396	49358	8	20.417	9.664
49046	18	16.282	25.118	49137	14	17.015	1.948	49211	21	19.506	4.386	49285*	47	9.436	7.470	49359	38	20.562	9.430
49047	20	16.300	25.007	49138	8	17.016	1.532	49212	10	20.324	4.152	49286	33	9.603	7.402	49360	11	21.678	9.240
49048	10	17.876	25.783	49139	13	19.024	1.229	49213	8	21.034	4.618	49287	10	10.644	7.494	49361	11	22.514	9.440
49049	11	18.340	25.982	49140	8	24.381	1.276	49214	8	21.262	4.961	49288	8	10.762	7.208	49362	10	23.716	9.459
49050	28	18.928	25.046	49141	8	24.426	1.971	49215	17	22.365	4.175	49289*	42	10.896	7.170	49363	12	24.875	9.788
49051	11	21.714	25.851	49142	14	25.324	1.036	49216	11	24.998	4.706	49290*	41	10.947	7.232	49364	11	0.154	10.646
49052	13	22.132	25.760	49143	11	0.044	2.802	49217	8	0.042	5.428	49291	9	11.450	7.060	49365	8	1.498	10.096
49053	11	22.919	25.720	49144	12	0.112	2.825	49218	8	3.803	5.692	49292	9	11.807	7.704	49366	8	4.460	10.125
49054	8	22.932	25.019	49145	12	0.226	2.940	49219	33	5.772	5.486	49293	8	12.046	7.649	49367	11	5.544	10.086
49055	8	23.432	25.811	49146	11	1.120	2.292	49220	10	6.546	5.754	49294	8	12.122	7.404	49368	10	6.607	10.598
49056	8	25.653	25.265	49147	9	2.057	2.524	49221	24	7.043	5.648	49295	12	12.570	7.653	49369	19	9.183	10.206
49057	90	25.940	25.979	49148	10	2.576	2.284	49222	8	7.611	5.178	49296	8	13.548	7.754	49370	8	9.610	10.500
				49149	15	2.642	2.862	49223*	40	8.130	5.224	49297	28	14.809	7.914	49371	8	10.512	10.098
				49150	9	3.426	2.945	49224	28	8.610	5.052	49298	8	15.071	7.293	49372	10	10.704	10.458
				49151	9	5.016	2.049	49225	8	9.066	5.256	49299	8	15.350	7.804	49373	8	14.614	10.550
				49152*	50	5.360	2.459	49226	10	11.030	5.463	49300	29	15.464	7.195	49374	10	18.149	10.652
				49153	14	6.566	2.782	49227	8	11.546	5.840	49301	12	18.499	7.747	49375	8	19.618	10.309
				49154	18	7.105	2.940	49228	13	11.544	5.290	49302	8	18.916	7.784	49376	8	20.100	10.834
				49155	11	7.358	2.378	49229	8	12.350	5.780	49303	12	19.075	7.174	49377	34	20.586	10.566
				49156	8	8.163	2.152	49230	8	13.580	5.393	49304	8	19.598	7.151	49378	8	23.274	10.556
				49157*	41	9.243	2.364	49231	9	13.750	5.510	49305	8	19.851	7.919	49379	12	24.744	10.711
				49158	8	9.546	2.498	49232	31	14.092	5.465	49306	8	19.950	7.934	49380	23	25.187	10.520
				49159	9	10.484	2.163	49233	10	14.292	5.334	49307	24	21.400	7.432	49381	8	25.875	10.533
				49160	13	15.195	2.999	49234	9	14.934	5.360	49308	11	24.236	7.279	49382	8	25.994	10.340
				49161	8	16.727	2.425	49235	18	15.182	5.112	49309	8	25.269	7.336	49383	9	0.200	11.900
				49162	10	16.797	2.801	49236	31	16.012	5.508	49310	10	25.410	7.097	49384	9	1.925	11.568
				49163	8	18.270	2.665	49237	25	16.100	5.849	49311	8	25.720	7.028	49385	9	5.158	11.597
				49164	11	18.798	2.358	49238	8	18.280	5.054	49312	18	25.776	7.016	49386	11	5.904	11.650
				49165	8	19.249	2.491	49239	13	18.831	5.036	49313	8	0.467	8.684	49387	16	6.176	11.022
				49166	8	20.547	2.565	49240	9	20.521	5.257	49314	9	1.185	8.038	49388	8	7.182	11.203
				49167	8	21.544	2.396	49241	23	21.117	5.766	49315	14	5.140	8.952	49389	10	9.124	11.720
				49168	8	23.612	2.215	49242	21	21.180	5.054	49316	8	7.208	8.075	49390	21	12.219	11.094
				49169	9	23.718	2.980	49243	9	23.027	5.277	49317	15	7.822	8.684	49391	8	12.398	11.196
				49170	8	25.254	2.830	49244	15	23.286	5.214	49318	8	9.284	8.014	49392	23	12.980	11.880
				49171	10	0.196	2.338	49245	8	25.022	5.402	49319	8	9.766	8.215	49393	8	13.748	11.690
				49172	10	0.610	3.537	49246	41	0.618	6.470	49320	8	9.886	8.486	49394	17	14.246	11.795
				49173	9	4.592	3.012	49247	12	1.445	6.870	49321*	60	11.360	8.546	49395	8	15.158	11.580
				49174	11	4.608	3.996	49248	8	1.980	6.490	49322	9	12.098	8.930	49396	11	17.424	11.953
				49175	8	4.854	3.315	49249	8	3.798	6.478	49323	11	12.484	8.130	49397	11	18.435	11.620
				49176	8	4.884	3.323	49250	10	6.570	6.092	49324	21	13.046	8.224	49398	25	18.838	11.447
				49177	8	6.359	3.902	49251	10	6.624	6.970	49325	10	13.163	8.782	49399	20	19.200	11.135
				49178	9	9.028	3.398	49252	9	8.456	6.225	49326	13	13.346	8.714	49400	8	19.528	11.510
				49179	16	14.103	3.680	49253	15	9.786	6.238	49327	10	14.338	8.706	49401	10	19.546	11.454
		</																	



49409	18	5°354	12°972	49483	10	2°869	15°712	49557	14	25°210	16°082	49631	8	6°782	19°600	49705*	43	24°566	21°770
49410	12	5°860	12°222	49484*	38	2°916	15°572	49558	8	0°080	17°280	49632	9	7°363	19°788	49706	11	25°268	21°516
49411	10	5°871	12°581	49485	8	4°523	15°745	49559	8	1°269	17°135	49633	14	7°367	19°762	49707	9	2°826	22°588
49412	8	7°226	12°224	49486	32	5°461	15°932	49560	15	2°124	17°937	49634	26	10°492	19°619	49708	8	3°190	22°551
49413	8	7°944	12°276	49487	10	6°988	15°438	49561	18	2°270	17°938	49635	11	11°974	19°926	49709	8	3°616	22°458
49414	8	8°788	12°596	49488*	50	8°100	15°398	49562	9	2°559	17°612	49636	14	12°480	19°936	49710	10	4°070	22°404
49415	8	8°952	12°518	49489	8	8°690	15°114	49563	9	3°008	17°295	49637	13	14°200	19°578	49711	9	4°660	22°302
49416	19	9°432	12°306	49490	11	9°800	15°680	49564*	43	4°816	17°883	49638	9	14°363	19°090	49712	10	4°880	22°757
49417	15	9°894	12°785	49491	14	10°197	15°864	49565	8	6°370	17°220	49639	8	14°852	19°780	49713	15	5°241	22°710
49418	10	11°475	12°294	49492	23	10°500	15°006	49566	30	7°184	17°978	49640	8	17°198	19°725	49714	8	5°454	22°273
49419	8	11°692	12°894	49493	14	10°940	15°680	49567	8	7°982	17°284	49641	8	19°636	19°474	49715	9	7°235	22°008
49420	10	16°086	12°814	49494	8	11°058	15°699	49568	8	7°984	17°385	49642	36	20°602	19°010	49716	9	10°090	22°525
49421	15	16°607	12°960	49495	20	11°912	15°474	49569	8	9°171	17°555	49643	22	20°924	19°210	49717*	52	10°332	22°965
49422	14	16°893	12°424	49496	17	12°030	15°075	49570	26	11°324	17°446	49644	10	21°142	19°172	49718	8	10°836	22°208
49423	48	19°950	12°310	49497	12	12°250	15°168	49571	8	12°620	17°470	49645	9	22°726	19°066	49719	9	11°148	22°036
49424	8	20°824	12°884	49498	9	12°558	15°140	49572	36	13°934	17°433	49646*	48	24°192	19°582	49720	10	12°740	22°734
49425	10	20°940	12°664	49499	8	12°920	15°686	49573	26	14°212	17°257	49647	12	24°488	19°657	49721	13	13°255	22°228
49426	15	21°655	12°006	49500	9	13°494	15°123	49574	26	14°266	17°465	49648	34	24°876	19°606	49722	8	13°764	22°444
49427	8	22°314	12°722	49501	9	14°375	15°260	49575	24	14°462	17°442	49649	8	25°093	19°154	49723	18	15°849	22°120
49428	14	22°488	12°320	49502	12	14°800	15°310	49576	29	15°902	17°740	49650	22	25°358	19°501	49724	8	15°938	22°609
49429	8	23°156	12°486	49503	8	16°130	15°774	49577	8	16°482	17°958	49651	8	25°795	19°545	49725	10	16°314	22°852
49430*	40	24°996	12°475	49504	18	17°380	15°297	49578*	55	16°502	17°050	49652	8	2°109	20°819	49726	8	16°320	22°599
49431	21	0°082	13°938	49505	8	17°586	15°589	49579	14	16°645	17°342	49653	8	3°344	20°818	49727	8	17°218	22°878
49432	44	1°251	13°107	49506	13	17°716	15°606	49580	8	17°134	17°032	49654	8	4°256	20°910	49728	30	18°738	22°535
49433*	50	2°562	13°443	49507	8	17°726	15°115	49581	10	17°469	17°667	49655	14	4°454	20°257	49729	33	18°892	22°350
49434	8	6°082	13°152	49508	10	19°210	15°745	49582	8	17°994	17°712	49656	8	4°667	20°020	49730	8	21°540	22°593
49435	14	6°810	13°640	49509	10	19°689	15°565	49583	26	18°968	17°560	49657	8	4°846	20°163	49731	15	21°720	22°196
49436	8	6°952	13°379	49510	10	20°740	15°517	49584	22	19°080	17°723	49658	21	6°461	20°921	49732	14	22°452	22°106
49437	9	7°451	13°200	49511	8	22°703	15°353	49585	11	19°670	17°826	49659	8	7°414	20°527	49733	9	23°420	22°703
49438	8	8°544	13°916	49512	9	22°821	15°481	49586	8	21°577	17°870	49660	9	7°787	20°029	49734	49	24°199	22°367
49439	8	9°806	13°922	49513	8	23°036	15°809	49587	31	21°836	17°900	49661	9	8°424	20°137	49735*	37	24°234	22°987
49440	8	9°822	13°874	49514	9	23°113	15°692	49588	8	23°540	17°516	49662	10	10°875	20°306	49736	11	24°670	22°216
49441	10	10°346	13°688	49515	14	25°582	15°498	49589	11	24°025	17°530	49663	9	11°952	20°340	49737	8	25°844	22°490
49442	15	10°957	13°230	49516	19	1°908	16°965	49590	13	24°637	17°070	49664	17	12°078	20°088	49738	8	25°966	22°850
49443	8	11°951	13°104	49517	10	2°156	16°144	49591	11	0°577	18°350	49665	10	14°744	20°938	49739	9	0°368	23°607
49444	8	12°460	13°835	49518	10	3°836	16°518	49592	18	0°782	18°802	49666	9	15°537	20°440	49740	10	5°088	23°253
49445	15	12°459	13°082	49519	15	4°039	16°660	49593	9	0°915	18°820	49667	17	16°215	20°504	49741	8	5°280	23°524
49446	9	12°971	13°234	49520	8	4°218	16°170	49594	9	2°015	18°970	49668	13	16°321	20°244	49742	8	5°444	23°766
49447	8	13°962	13°267	49521	12	4°700	16°533	49595	19	3°540	18°396	49669	8	16°332	20°815	49743	8	5°480	23°674
49448	40	14°673	13°257	49522	19	4°850	16°636	49596	11	4°770	18°691	49670	14	16°655	20°142	49744	34	5°628	23°950
49449	28	17°080	13°710	49523	13	5°180	16°622	49597	8	4°896	18°421	49671	10	19°366	20°550	49745	9	5°632	23°480
49450	8	19°970	13°641	49524	8	7°180	16°108	49598	26	5°346	18°879	49672	27	20°617	20°310	49746	8	6°155	23°678
49451	12	20°890	13°342	49525	8	7°764	16°618	49599	14	5°457	18°598	49673	13	20°937	20°958	49747	8	7°990	23°122
49452	10	20°955	13°330	49526	12	7°836	16°390	49600	9	7°648	18°429	49674	8	21°220	20°516	49748	14	8°636	23°077
49453	8	23°034	13°128	49527	9	8°011	16°868	49601	12	7°997	18°382	49675	12	21°804	20°474	49749	31	9°800	23°500
49454	8	23°733	13°100	49528	8	8°643	16°310	49602	8	8°598	18°099	49676	8	22°435	20°336	49750	12	10°106	23°115
49455	8	24°326	13°457	49529	8	9°717	16°208	49603	17	9°696	18°887	49677	26	22°626	20°078	49751	10	10°711	23°995
49456	8	1°986	14°306	49530	41	9°777	16°274	49604	16	10°631	18°308	49678	8	22°775	20°594	49752	8	11°630	23°099
49457	8	3°122	14°766	49531	8	11°352	16°170	49605	8	10°673	18°768	49679	10	23°100	20°580	49753	8	11°955	23°436
49458	11	4°466	14°602	49532	8	11°612	16°290	49606	30	13°900	18°873	49680	19	23°419	20°080	49754	8	12°346	23°538
49459	10	6°004	14°049	49533	8	12°420	16°808	49607	20	15°867	18°754	49681	8	23°536	20°974	49755	10	12°854	23°859
49460	10	6°039	14°570	49534	14	12°746	16°976	49608	8	16°377	18°293	49682	15	24°422	20°420	49756	9	13°883	23°913
49461	10	8°186	14°838	49535	8	12°878	16°940	49609	17	16°436	18°137	49683	9	25°036	20°208	49757	8	14°298	23°434
49462	13	9°038	14°198	49536	8	13°166	16°264	49610	8	16°634	18°507	49684	16	25°420	20°745	49758	10	15°905	23°788
49463	10	9°772	14°462	49537	8	14°094	16°835	49611	10	17°084	18°878	49685	9	25°903	20°227	49759	8	15°930	23°836
49464	12	11°437	14°175	49538	10	14°498	16°940	49612	17	18°108	18°200	49686	10	0°158	21°896	49760	12	16°730	23°734
49465	12	11°644	14°677	49539	9	14°682	16°220	49613*	60	19°429	18°705	49687	11	1°070	21°018	49761	15	17°778	23°316
49466	51	12°920	14°750	49540	8	14°770	16°045	49614	15	19°603	18°182	49688	9	1°765	21°519	49762	32	18°758	23°314
49467	8	13°082	14°375	49541	10	14°932	16°668	49615	8	19°634	18°857	49689*	75	2°272	21°606	49763	8	20°435	23°038
49468	11	13°858	14°234	49542	8	15°716	16°062	49616	33	19°666	18°980	49690	19	5°321	21°276	49764	17	20°770	23°042
49469	8	15°544	14°850	49543	8	15°756	16°055	49617	8	21°756	18°356	49691	25	6°632	21°480	49765	23	21°383	23°616
49470	10	16°298	14°518	49544	8	16°224	16°583	49618	8	21°933	18°112	49692	8	7°428	21°700	49766	12	22°450	23°200
49471	33	16°466	14°831	49545	15	16°614	16°533	49619											



49779	8	6.590	24.163	49853	8	24.590	25.326	49946	8	20.882	1.888	50020	8	8.340	4.404	50094	8	3.216	7.212
49780	10	7.979	24.955	49854	11	24.626	25.780	49947	8	23.138	1.938	50021	8	8.454	4.615	50095	15	3.272	7.200
49781	9	8.325	24.738	49855	8	24.690	25.453	49948	16	23.474	1.750	50022	18	8.580	4.272	50096	8	3.561	7.579
49782	9	9.112	24.194					49949	10	25.716	1.530	50023	8	8.668	4.135	50097	12	3.726	7.682
49783	13	9.258	24.919					49950	9	1.061	2.421	50024	10	9.618	4.356	50098	23	4.381	7.983
49784	24	9.770	24.988					49951	10	1.876	2.167	50025	12	10.938	4.733	50099	8	6.425	7.582
49785	18	10.450	24.306					49952	8	1.433	2.449	50026	8	18.062	4.157	50100	8	7.283	7.556
49786	10	10.724	24.865					49953	8	3.130	2.661	50027	26	19.724	4.410	50101	8	9.046	7.186
49787	16	10.775	24.476					49954	10	4.424	2.638	50028	12	19.857	4.524	50102	10	9.411	7.169
49788	14	11.286	24.386					49955	8	5.408	2.548	50029	8	20.165	4.584	50103	14	12.356	7.487
49789	16	11.730	24.637					49956	10	5.421	2.443	50030	10	20.816	4.188	50104*	45	13.922	7.280
49790	8	11.776	24.745					49957	25	5.894	2.691	50031	8	21.310	4.940	50105	18	16.107	7.260
49791	8	12.298	24.533					49958	8	5.922	2.713	50032	12	22.186	4.917	50106	8	16.448	7.312
49792	12	12.717	24.955					49959	11	8.358	2.470	50033	12	22.794	4.466	50107	8	16.872	7.982
49793	10	12.980	24.516					49960	8	8.544	2.843	50034	12	24.350	4.942	50108	8	16.993	7.668
49794	8	13.209	24.787					49961	8	10.216	2.043	50035	8	25.121	4.670	50109	8	19.621	7.178
49795	14	13.290	24.628					49962	19	12.239	2.358	50036	8	0.276	5.294	50110	8	21.834	7.680
49796	8	14.542	24.120					49963	22	12.626	2.640	50037	8	0.507	5.484	50111	8	22.723	7.078
49797	17	14.710	24.088					49964	8	13.006	2.555	50038	18	0.765	5.420	50112	14	22.946	7.856
49798	10	15.298	24.236					49965	11	14.770	2.973	50039	8	2.505	5.591	50113	8	23.051	7.023
49799	33	17.291	24.416					49966	8	14.856	2.342	50040	17	3.660	5.812	50114	14	24.244	7.943
49800	8	18.204	24.294					49967	12	14.873	2.094	50041	14	3.658	5.444	50115	17	25.314	7.266
49801	8	18.663	24.302					49968	12	16.575	2.456	50042	16	4.060	5.293	50116	8	25.815	7.630
49802	10	18.694	24.588					49969	12	18.550	2.535	50043	8	4.138	5.874	50117	8	0.121	8.360
49803	9	19.639	24.450					49970	9	19.608	2.171	50044	11	4.602	5.143	50118	19	0.775	8.760
49804	8	20.418	24.700					49971	8	20.749	2.369	50045	8	5.174	5.542	50119	8	0.853	8.377
49805	18	20.588	24.842					49972	8	23.254	2.683	50046	8	5.366	5.541	50120	8	0.898	8.606
49806*	55	21.030	24.540					49973	16	23.380	2.217	50047	8	6.966	5.312	50121	8	0.928	8.668
49807	29	24.322	24.498					49974	8	23.409	2.556	50048	21	9.586	5.560	50122	8	1.406	8.228
49808	8	24.355	24.787					49975*	43	23.870	2.329	50049	8	10.807	5.769	50123	11	2.014	8.622
49809	12	25.678	24.240					49976	9	24.065	2.205	50050	8	14.852	5.682	50124	11	2.054	8.584
49810	10	0.072	25.946					49977	19	24.068	2.801	50051	10	15.418	5.032	50125	9	3.380	8.678
49811	9	0.857	25.900					49978	9	24.084	2.372	50052	8	17.222	5.080	50126	8	3.789	8.484
49812	8	0.860	25.192					49979	10	1.179	3.181	50053	8	17.302	5.890	50127	11	5.772	8.532
49813	8	1.371	25.978					49980	8	1.723	3.263	50054	10	18.169	5.510	50128	9	8.132	8.741
49814	8	3.585	25.398					49981	26	2.377	3.813	50055	27	19.969	5.776	50129	14	9.021	8.289
49815	11	4.282	25.661					49982	8	2.714	3.016	50056	8	22.546	5.259	50130	8	9.175	8.136
49816	15	5.214	25.747					49983	31	2.806	3.264	50057	10	22.728	5.312	50131	9	12.630	8.320
49817	8	6.194	25.032					49984	8	4.586	3.471	50058	15	23.358	5.150	50132	15	15.321	8.782
49818	8	6.622	25.926					49985	30	4.775	3.765	50059	16	23.964	5.926	50133	15	15.500	8.520
49819	11	7.176	25.019					49986	8	5.014	3.493	50060	17	25.771	5.890	50134	12	16.378	8.900
49820	18	9.766	25.178					49987	9	5.175	3.616	50061	8	1.404	6.200	50135	11	18.136	8.363
49821	51	10.544	25.660					49988	12	5.691	3.104	50062	14	1.714	6.261	50136	8	19.549	8.962
49822	8	10.584	25.876					49989	14	6.158	3.357	50063*	30	2.490	6.234	50137	8	19.667	8.354
49823	12	10.943	25.580					49990	11	6.436	3.244	50064	9	3.429	6.900	50138	8	20.176	8.077
49824	8	11.352	25.480					49991	13	6.664	3.027	50065	8	3.622	6.582	50139	12	20.448	8.465
49825	8	11.400	25.074					49992	9	7.067	3.746	50066	8	3.661	6.932	50140	15	21.063	8.704
49826	25	11.714	25.471					49993	8	8.147	3.687	50067	8	4.022	6.558	50141	12	21.176	8.688
49827	15	11.980	25.212					49994	13	8.154	3.536	50068	8	4.360	6.543	50142	14	21.294	8.322
49828	15	12.738	25.046					49995	8	8.206	3.236	50069	18	5.324	6.384	50143	8	21.601	8.762
49829	8	13.196	25.813					49996	30	8.726	3.847	50070	8	7.156	6.831	50144	15	21.954	8.067
49830	8	13.256	25.378					49997	8	9.440	3.092	50071	9	7.165	6.724	50145	8	24.190	8.220
49831	13	13.628	25.366					49998	15	9.516	3.411	50072	12	7.197	6.307	50146	13	0.036	9.652
49832	10	13.752	25.118					49999	22	10.024	3.807	50073	8	8.642	6.322	50147	10	1.236	9.660
49833	14	15.350	25.213					50000	12	10.506	3.760	50074	18	8.768	6.060	50148	10	2.400	9.980
49834	43	15.544	25.624					50001	12	12.036	3.746	50075	15	10.256	6.902	50149	8	2.877	9.907
49835	8	15.544	25.200					50002	22	13.622	3.278	50076	8	10.498	6.648	50150	8	4.089	9.575
49836	8	16.686	25.194					50003	8	13.676	3.482	50077	13	12.037	6.017	50151	18	4.372	9.400
49837	8	16.796	25.744					50004	19	18.145	3.077	50078	17	12.200	6.194	50152	9	4.980	9.354
49838	46	17.965	25.036					50005	27	20.406	3.285	50079	16	14.526	6.497	50153	8	5.042	9.458
49839	9	18.029	25.822					50006	12	21.842	3.566	50080	8	15.373	6.964	50154	10	5.651	9.400
49840	8	18.661	25.602					50007*	42	21.896	3.323	50081	18	18.230	6.286	50155	15	5.936	9.262
49841	13	18.950	25.001					50008	9	21.965	3.014	50082	8	18.695	6.894	50156*	52	6.516	9.890
49842	10	19.686	25.244					50009	13	22.969	3.969	50083	13	19.112	6.290	50157	10	6.516	9.550
49843	8	19.719	25.854					50010	8	23.978	3.817	50084	8	20.602	6.729	50158	11	8.418	9.815
49844	23	20.054	25.702					50011	9	24.961	3.423	50085	8	21.149	6.448	50159*	30	9.598	9.440
49845	20	20.366	25.121					50012	12	1.068	4.191	50086	11	21.322	6.750	50160*	60	10.566	9.288
49846	37	21.721	25.990					50013	8	2.163	4.524	50087	10	23.458	6.822	50161	9	12.270	9.701
49847	10	21.917	25.944					50014	15	2.470	4.898	50088	11	23.722	6.095	50162	10	13.471	9.582
49848	58	22.155	25.288					50015	8	5.274	4.200	50089	8	24.308	6.994	50163	8	14.250	9.434
49849	12	22.256	25.262					50016	8	5.284	4.027	50090	8	25.532	6.511	50164	8	15.660	9.813



50168	8	19°700	9°432	50242	12	8°504	13°404	50316	8	18°174	16°074	50390	8	25°411	19°356	50464	8	13°875	23°708
50169	13	20°130	9°198	50243	11	8°755	13°958	50317	10	18°786	16°518	50391	12	25°991	19°958	50465	11	14°555	23°098
50170	8	20°210	9°042	50244	11	8°861	13°994	50318	8	18°965	16°515	50392	19	0°249	20°290	50466	8	15°256	23°386
50171	8	22°206	9°878	50245*	64	9°019	13°761	50319	12	20°805	16°236	50393	8	0°407	20°804	50467	22	18°398	23°344
50172	8	23°135	9°246	50246	20	9°062	13°654	50320	12	21°390	16°936	50394	10	0°728	20°788	50468	12	19°944	23°190
50173	8	23°808	9°590	50247	9	10°338	13°485	50321	13	23°679	16°841	50395	15	1°040	20°288	50469	8	20°836	23°453
50174	18	24°900	9°159	50248	14	10°695	13°476	50322	18	25°294	16°015	50396	14	2°047	20°616	50470	13	21°544	23°835
50175	8	0°805	10°764	50249	8	11°203	13°254	50323	22	25°527	16°498	50397	8	2°662	20°396	50471	14	23°114	23°630
50176	10	2°274	10°902	50250	11	13°417	13°324	50324	8	0°275	17°942	50398	14	3°052	20°929	50472	19	1°987	24°692
50177	19	2°716	10°708	50251	8	14°700	13°422	50325	8	1°138	17°718	50399	12	3°528	20°406	50473	8	2°026	24°980
50178	8	3°408	10°714	50252	8	15°768	13°614	50326	9	1°625	17°728	50400	8	6°447	20°304	50474	12	3°346	24°422
50179	8	3°522	10°520	50253	19	16°732	13°780	50327	11	2°234	17°262	50401	9	6°982	20°244	50475	9	3°890	24°060
50180	8	3°753	10°184	50254	29	16°891	13°780	50328*	49	5°906	17°980	50402	8	7°955	20°194	50476	18	6°398	24°370
50181	11	4°841	10°594	50255	8	20°098	13°826	50329	8	8°015	17°975	50403*	67	8°208	20°760	50477	8	9°609	24°342
50182	14	5°251	10°244	50256	10	20°675	13°730	50330*	70	8°582	17°170	50404	8	10°640	20°074	50478	8	13°404	24°555
50183	11	5°258	10°418	50257	8	21°302	13°316	50331	9	8°986	17°290	50405	10	11°173	20°790	50479	8	15°269	24°785
50184	8	8°318	10°966	50258	8	21°692	13°351	50332	38	9°524	17°590	50406	10	12°463	20°350	50480	8	19°229	24°820
50185*	80	8°719	10°466	50259	24	23°616	13°726	50333	8	11°156	17°096	50407	33	14°292	20°324	50481	15	21°474	24°656
50186	8	11°824	10°948	50260	8	25°878	13°744	50334	17	13°046	17°886	50408	9	15°575	20°303	50482	8	21°936	24°633
50187	9	12°165	10°542	50261	41	0°325	14°996	50335	22	13°278	17°401	50409	8	16°900	20°929	50483	8	22°076	24°991
50188	14	12°282	10°920	50262	8	1°394	14°574	50336	8	14°421	17°618	50410	21	21°138	20°714	50484	24	25°384	24°118
50189	8	13°886	10°377	50263	12	1°604	14°332	50337	12	14°664	17°456	50411	10	21°244	20°826	50485	8	0°927	25°778
50190	21	14°884	10°644	50264	8	1°776	14°148	50338	11	16°846	17°591	50412	19	21°656	20°168	50486	15	1°720	25°770
50191	8	18°186	10°506	50265	10	4°972	14°525	50339	8	17°983	17°330	50413	11	21°856	20°802	50487	40	1°738	25°284
50192	15	18°760	10°300	50266	8	6°704	14°293	50340	24	20°884	17°640	50414	9	22°036	20°977	50488	23	1°863	25°641
50193	8	20°030	10°179	50267*	67	10°414	14°715	50341	15	21°693	17°850	50415	10	23°230	20°072	50489	8	2°267	25°520
50194	8	20°062	10°122	50268*	44	11°352	14°830	50342	19	22°955	17°454	50416	8	0°053	21°370	50490	15	2°306	25°974
50195*	56	20°194	10°072	50269	9	12°335	14°039	50343	13	23°392	17°954	50417	10	1°437	21°317	50491	9	2°370	25°646
50196	8	20°797	10°022	50270	10	12°717	14°578	50344	12	24°100	17°540	50418	31	1°463	21°539	50492	8	4°176	25°064
50197	8	21°656	10°914	50271	8	13°652	14°703	50345	8	0°654	18°718	50419*	32	2°204	21°964	50493	13	4°341	25°009
50198	8	21°693	10°840	50272	22	15°026	14°352	50346	8	3°950	18°474	50420	10	2°906	21°702	50494	23	4°364	25°067
50199	8	23°684	10°241	50273	8	15°244	14°860	50347	12	5°024	18°076	50421	14	9°292	21°924	50495	8	9°860	25°521
50200	8	0°934	11°909	50274	11	16°403	14°636	50348	26	5°253	18°881	50422	8	9°313	21°922	50496	13	10°916	25°807
50201	11	4°530	11°857	50275	8	17°024	14°461	50349	9	6°021	18°930	50423*	9	10°471	21°168	50497	11	12°234	25°001
50202	15	4°636	11°999	50276	18	18°728	14°696	50350	10	7°236	18°982	50424	10	11°106	21°044	50498	19	12°655	25°160
50203	8	5°361	11°186	50277	10	19°195	14°098	50351	8	7°574	18°738	50425	10	18°458	21°950	50499	16	13°484	25°328
50204	8	5°579	11°791	50278	8	22°576	14°360	50352	29	7°821	18°100	50426	14	18°460	21°138	50500	25	15°916	25°673
50205	13	5°728	11°074	50279	8	23°146	14°952	50353	42	10°428	18°988	50427	8	20°328	21°920	50501	8	17°113	25°780
50206	22	5°919	11°696	50280	8	24°307	14°940	50354	9	11°250	18°884	50428	8	21°401	21°130	50502*	66	17°393	25°039
50207	8	6°452	11°760	50281	11	25°410	14°158	50355	13	12°870	18°104	50429	9	24°034	21°118	50503	22	18°100	25°461
50208	8	8°951	11°602	50282	8	0°281	15°564	50356	10	13°602	18°217	50430	8	24°119	21°270	50504	10	25°513	25°530
50209	8	9°560	11°713	50283	8	0°400	15°692	50357	8	13°635	18°324	50431	12	0°098	22°322	50505	19	25°869	25°206
50210	16	12°050	11°350	50284	8	0°693	15°900	50358	17	15°838	18°915	50432	8	1°068	22°904				
50211	28	13°440	11°563	50285	13	3°162	15°679	50359	11	20°368	18°736	50433	8	1°437	22°202				
50212*	33	15°442	11°470	50286	9	4°592	15°065	50360	17	21°052	18°008	50434	40	1°840	22°560				
50213	9	15°488	11°386	50287	8	5°027	15°210	50361	10	21°200	18°468	50435	12	2°316	22°406				
50214	9	21°294	11°508	50288	10	5°893	15°030	50362	8	22°190	18°523	50436	8	3°494	22°669				
50215	8	21°907	11°726	50289	22	7°584	15°444	50363	8	22°204	18°847	50437	19	3°864	22°445				
50216	17	23°487	11°340	50290	8	9°464	15°513	50364	8	23°230	18°722	50438	12	4°443	22°974				
50217	13	24°478	11°658	50291	11	9°974	15°360	50365	14	23°494	18°330	50439	23	7°172	22°252				
50218	14	0°035	12°534	50292	9	10°232	15°236	50366	11	24°916	18°066	50440	20	8°376	22°709				
50219*	27	2°541	12°665	50293	27	12°160	15°698	50367*	30	1°000	19°000	50441	24	8°628	22°628				
50220	8	3°700	12°303	50294	18	14°065	15°106	50368*	40	1°808	19°779	50442	23	8°754	22°978				
50221	8	3°840	12°188	50295	8	14°095	15°517	50369	11	2°108	19°850	50443	12	10°504	22°267				
50222	11	4°439	12°610	50296	14	14°152	15°008	50370	21	2°495	19°794	50444	9	15°198	22°964				
50223	8	4°594	12°006	50297	22	17°954	15°484	50371	17	2°975	19°687	50445*	46	15°498	22°484				
50224	8	5°538	12°559	50298*	14	20°002	15°568	50372	8	3°416	19°724	50446	8	16°212	22°448				
50225	10	6°332	12°985	50299	11	23°416	15°400	50373	8	3°902	19°710	50447	20	19°914	22°568				
50226	8	7°332	12°426	50300	10	23°684	15°406	50374	12	6°589	19°144	50448	21	20°711	22°170				
50227	8	10°456	12°194	50301*	44	24°331	15°800	50375	11	10°213	19°934	50449	12	20°830	22°500				
50228	8	11°938	12°220	50302	10	24°348	15°386	50376	14	10°990	19°091	50450	8	25°498	22°526				
50229	11	12°232	12°960	50303	10	24°524	15°120	50377	14	11°984	19°310	50451	12	0°106	23°413				
50230	8	16°038	12°441	50304	17	25°702	15°080	50378*	38	13°119	19°640	50452	44	0°324	23°274				
50231	8	16°222	12°702	50305	35	2°196	16°430	50379	8	13°802	19°030	50453	11	0°819	23°410				
50232	9	19°492	12°797	50306	8	2°420	16°956	50380	13	14°000	19°236	50454*	27	1°881	23°179				
50233	19	20°187																	



50557	8	11.075	0.444	50631	8	24.706	2.905	50705	8	0.432	5.256	50779	29	14.434	7.759	50853	42	25.480	10.364
50558	8	11.990	0.906	50632	13	25.134	2.659	50706	16	1.058	5.086	50780	8	16.288	7.976	50854	26	1.234	11.276
50559	8	14.375	0.957	50633	15	0.661	3.912	50707	27	1.670	5.862	50781	8	16.988	7.234	50855	16	2.229	11.587
50560	24	15.303	0.092	50634	8	1.672	3.752	50708*	39	3.414	5.974	50782	13	17.272	7.725	50856	8	5.788	11.317
50561	15	17.500	0.114	50635	8	2.310	3.217	50709	25	3.476	5.810	50783	8	17.567	7.438	50857	8	6.331	11.344
50562	9	18.745	0.855	50636	8	2.648	3.350	50710*	45	6.000	5.150	50784	20	17.702	7.584	50858	40	7.780	11.866
50563	8	19.708	0.836	50637	8	5.753	3.711	50711	8	7.046	5.992	50785	10	18.152	7.004	50859*	63	8.848	11.702
50564	23	21.100	0.176	50638	12	6.868	3.827	50712	27	7.306	5.087	50786	8	19.112	7.386	50860	36	8.925	11.346
50565	8	21.110	0.222	50639	8	7.083	3.667	50713	8	8.592	5.444	50787	8	19.948	7.059	50861	8	8.972	11.114
50566	8	25.109	0.474	50640	22	7.500	3.791	50714	8	9.154	5.844	50788	16	24.900	7.884	50862	8	11.946	11.318
50567	12	25.134	0.158	50641	16	7.674	3.345	50715	44	9.546	5.606	50789	12	25.106	7.846	50863	15	13.034	11.511
50568	37	25.319	0.675	50642	44	8.130	3.614	50716	26	9.764	5.354	50790	10	1.912	8.154	50864	10	15.876	11.712
50569	8	0.815	1.876	50643*	41	8.778	3.761	50717	9	9.804	5.756	50791	10	6.433	8.875	50865	13	15.950	11.700
50570	21	1.150	1.688	50644	8	8.935	3.468	50718	25	10.120	5.158	50792	8	7.103	8.444	50866	8	16.354	11.969
50571	10	3.393	1.450	50645	8	9.191	3.822	50719	21	11.816	5.493	50793	8	7.103	8.016	50867	23	19.916	11.346
50572	20	3.735	1.773	50646	8	9.310	3.262	50720	32	12.606	5.340	50794	24	8.380	8.202	50868	17	20.326	11.926
50573	10	5.686	1.569	50647*	54	9.975	3.722	50721	8	12.956	5.429	50795	15	9.535	8.146	50869	10	21.020	11.412
50574	12	6.957	1.889	50648	8	10.210	3.346	50722	9	14.684	5.923	50796	8	11.056	8.412	50870	8	22.524	11.834
50575	8	7.874	1.717	50649	20	10.304	3.571	50723	23	15.146	5.044	50797	10	16.656	8.836	50871	24	23.846	11.936
50576	15	8.386	1.334	50650	8	10.492	3.672	50724	14	15.586	5.725	50798	9	17.610	8.026	50872	11	23.964	11.566
50577	16	9.244	1.278	50651	34	10.575	3.620	50725	30	16.123	5.638	50799	8	18.183	8.866	50873	8	24.076	11.486
50578	20	9.264	1.854	50652	39	10.918	3.664	50726	10	16.466	5.973	50800	34	19.158	8.707	50874	27	24.751	11.218
50579	8	9.804	1.146	50653	8	11.140	3.483	50727	8	17.642	5.030	50801	11	21.084	8.865	50875	8	0.782	12.338
50580	12	9.904	1.123	50654	8	11.993	3.875	50728	11	18.182	5.504	50802*	62	22.584	8.154	50876	15	2.004	12.451
50581	11	9.947	1.135	50655	8	12.545	3.964	50729	10	18.333	5.512	50803	8	23.026	8.148	50877	10	2.334	12.726
50582	8	10.504	1.940	50656	8	13.816	3.862	50730	10	19.032	5.243	50804	8	23.070	8.636	50878	8	3.933	12.640
50583	31	10.673	1.564	50657	8	15.407	3.821	50731	24	19.100	5.046	50805	51	23.304	8.218	50879	17	4.376	12.470
50584	40	11.536	1.766	50658	10	15.795	3.377	50732	31	19.342	5.542	50806	9	24.538	8.230	50880	9	5.774	12.850
50585	9	14.996	1.126	50659	20	17.497	3.366	50733	22	19.371	5.285	50807	32	25.796	8.386	50881	24	6.230	12.755
50586	9	16.185	1.344	50660	44	18.544	3.110	50734	40	20.800	5.259	50808	8	1.542	9.524	50882	16	9.444	12.098
50587	8	17.310	1.641	50661	8	19.717	3.569	50735	8	22.535	5.940	50809	31	2.633	9.086	50883	10	9.445	12.262
50588	8	18.652	1.794	50662	40	19.755	3.303	50736	22	23.634	5.202	50810	8	4.176	9.044	50884	8	9.973	12.785
50589	9	20.244	1.321	50663	8	23.475	3.104	50737	17	24.240	5.964	50811*	43	5.134	9.024	50885	21	10.379	12.385
50590	14	21.070	1.619	50664	8	25.149	3.274	50738	21	25.678	5.466	50812	11	7.246	9.546	50886	8	13.989	12.117
50591	8	21.096	1.972	50665	12	0.491	4.410	50739	11	1.171	6.760	50813	8	7.567	9.205	50887	8	15.814	12.857
50592	14	21.190	1.569	50666	13	2.050	4.874	50740	13	1.429	6.031	50814*	60	8.210	9.544	50888	8	16.367	12.224
50593	8	21.395	1.463	50667	8	2.820	4.595	50741	10	2.024	6.925	50815	17	8.390	9.866	50889	8	20.177	12.350
50594	11	22.643	1.384	50668	8	2.862	4.818	50742	8	3.245	6.436	50816	26	8.864	9.147	50890	28	20.504	12.956
50595	8	25.475	1.292	50669	8	3.030	4.776	50743	8	3.732	6.397	50817	11	9.720	9.392	50891	21	21.264	12.158
50596	24	25.574	1.955	50670	8	4.870	4.544	50744	8	3.807	6.787	50818	8	10.781	9.988	50892	28	21.900	12.408
50597	32	25.624	1.381	50671	23	5.156	4.166	50745	8	4.204	6.234	50819	9	11.096	9.439	50893	8	24.934	12.525
50598	12	25.656	1.984	50672	8	5.351	4.072	50746	8	4.546	6.342	50820	14	11.776	9.046	50894	8	25.892	12.686
50599	8	0.938	2.625	50673	14	5.804	4.201	50747	8	6.848	6.014	50821	12	12.094	9.634	50895	40	1.380	13.664
50600	20	1.056	2.154	50674	8	5.858	4.643	50748	8	7.665	6.314	50822	8	12.943	9.132	50896	8	1.938	13.691
50601	10	1.090	2.495	50675	18	7.354	4.578	50749	22	8.246	6.730	50823	30	13.503	9.701	50897	17	6.250	13.020
50602*	59	1.544	2.264	50676	19	8.049	4.406	50750	11	9.044	6.891	50824	8	13.730	9.784	50898	26	6.436	13.780
50603	11	1.744	2.139	50677	20	8.808	4.420	50751	8	11.430	6.450	50825	29	13.792	9.034	50899	8	6.715	13.304
50604	34	1.753	2.732	50678	22	9.231	4.416	50752	8	14.320	6.550	50826	25	16.078	9.366	50900	12	20.222	13.486
50605	10	1.765	2.303	50679	8	10.314	4.320	50753	15	14.907	6.424	50827	33	17.332	9.916	50901	12	21.160	13.304
50606*	78	4.323	2.159	50680	8	10.543	4.298	50754	10	17.905	6.305	50828*	57	18.766	9.149	50902	33	21.420	13.957
50607	8	5.724	2.787	50681	18	10.766	4.148	50755	14	18.316	6.316	50829	11	19.088	9.610	50903	24	21.622	13.545
50608	8	6.289	2.019	50682	18	11.026	4.600	50756	19	18.464	6.801	50830	13	19.158	9.624	50904	8	21.774	13.572
50609	8	6.894	2.718	50683*	38	11.634	4.706	50757	36	18.994	6.511	50831	9	21.104	9.813	50905	9	22.553	13.270
50610	9	7.850	2.546	50684	27	13.720	4.076	50758	22	19.112	6.050	50832	10	22.140	9.495	50906	8	23.387	13.732
50611	8	8.233	2.382	50685	27	14.074	4.177	50759	11	20.826	6.804	50833	8	22.292	9.126	50907	11	23.436	13.443
50612	8	8.357	2.991	50686	8	14.216	4.047	50760*	54	21.232	6.900	50834	25	23.748	9.708	50908	47	24.278	13.719
50613	12	9.283	2.353	50687	8	14.484	4.877	50761	10	23.230	6.636	50835*	55	24.268	9.776	50909	9	24.292	13.802
50614	40	9.390	2.674	50688	8	15.664	4.020	50762	12	23.366	6.310	50836	55	24.954	9.686	50910	21	24.412	13.865
50615	10	9.466	2.321	50689*	42	16.640	4.322	50763	40	24.531	6.630	50837	8	25.124	9.872	50911	8	25.306	13.936
50616	8	9.841	2.935	50690	8	16.964	4.447	50764	40	24.630	6.054	50838	8	25.152	9.441	50912	8	0.918	14.894
50617	13	13.694	2.055	50691	9	17.244	4.486	50765	8	24.904	6.618	50839	43	25.294	9.398	50913	8	1.744	14.715
50618	8	13.780	2.941	50692	11	17.346	4.020	50766	8	25.530	6.197	50840	8	7.416	10.314	50914	13	3.180	14.083
50619	8	14.136	2.384	50693	22	19.087	4.988	50767	8	0.436	7.018	50841	34	8.022	10.242	50915	16	3.476	14.999
50620	8	15.069	2.830	50694	11	19.412	4.508	50768	17	0.666	7.798	50842	32	8.056	10.00				



50927	29	18.122	14.894	51001	39	12.494	17.228	51075	42	7.059	20.304	51149	9	12.814	23.654	<div>R.A. 17<sup>h</sup> 56<sup>m</sup></div> <div>Plate 563; 1915 July 5.</div> <div>Provisional Constants.</div> <div>A B C</div> <div>−01727 +01153 −2376</div> <div>D E F</div> <div>−01136 −01769 +1841</div> <div>Mag. = 15.4 − 1.09√d</div>
50928	45	18.734	14.216	51002	11	12.871	17.752	51076	37	9.264	20.557	51150	41	13.682	23.307	
50929	8	18.852	14.542	51003	8	14.630	17.128	51077	9	12.088	20.718	51151	10	13.684	23.078	
50930	8	19.252	14.894	51004	31	17.344	17.354	51078	40	12.552	20.410	51152	36	13.770	23.652	
50931	12	22.098	14.386	51005	22	17.466	17.002	51079	18	13.066	20.666	51153	35	15.201	23.598	
50932	34	22.110	14.936	51006	25	17.629	17.576	51080	23	13.615	20.210	51154	11	15.452	23.642	
50933	10	22.614	14.686	51007	33	18.644	17.424	51081	11	15.486	20.985	51155	32	15.974	23.851	
50934	11	22.916	14.260	51008	15	18.765	17.198	51082	8	16.198	20.460	51156	17	17.935	23.367	
50935	16	22.960	14.612	51009*	46	19.514	17.232	51083	8	16.565	20.758	51157	29	18.106	23.281	
50936	37	23.967	14.864	51010	21	21.052	17.216	51084	8	17.046	20.273	51158	10	19.151	23.244	
50937	28	24.797	14.298	51011	19	24.204	17.074	51085	16	17.126	20.394	51159	38	19.474	23.810	
50938	11	1.196	15.337	51012	42	24.279	17.200	51086	8	18.296	20.619	51160	43	21.880	23.527	
50939	8	1.463	15.344	51013	8	24.402	17.212	51087	16	19.584	20.017	51161	14	24.272	23.382	
50940*	66	2.108	15.730	51014	14	24.713	17.178	51088	12	20.803	20.667	51162	56	25.484	23.101	
50941	8	2.126	15.316	51015	8	1.032	18.660	51089	22	22.060	20.100	51163	9	1.095	24.965	
50942	9	2.300	15.049	51016	19	1.294	18.266	51090	13	22.214	20.326	51164	8	2.590	24.435	
50943	26	3.076	15.940	51017	8	1.499	18.384	51091	10	22.236	20.165	51165	45	3.228	24.036	
50944	19	4.660	15.357	51018	9	5.498	18.044	51092	53	23.533	20.014	51166	12	5.476	24.843	
50945*	78	4.974	15.063	51019	22	6.136	18.467	51093	8	1.854	21.048	51167	8	6.823	24.556	
50946	8	5.298	15.262	51020	11	6.200	18.530	51094	8	1.942	21.202	51168	21	7.741	24.391	
50947	8	8.628	15.997	51021	42	6.374	18.794	51095	10	4.045	21.534	51169	15	8.806	24.097	
50948	18	8.770	15.588	51022	22	9.855	18.861	51096	14	4.415	21.666	51170	8	8.855	24.865	
50949	15	8.882	15.353	51023	32	11.376	18.652	51097	14	5.011	21.051	51171*	80	8.980	24.826	
50950	9	9.024	15.087	51024	11	13.720	18.114	51098	24	5.825	21.278	51172	8	9.934	24.873	
50951	14	9.538	15.992	51025	16	16.785	18.854	51099	8	6.723	21.824	51173	10	10.174	24.730	
50952	25	12.076	15.613	51026	8	17.355	18.416	51100	11	7.796	21.654	51174	31	10.702	24.068	
50953*	40	12.759	15.418	51027	17	17.440	18.910	51101	8	7.817	21.436	51175	26	13.414	24.396	
50954	10	15.156	15.949	51028	44	17.850	18.466	51102	8	9.436	21.471	51176	40	15.364	24.484	
50955	11	15.939	15.088	51029	8	18.431	18.869	51103	10	10.922	21.234	51177	38	17.061	24.335	
50956	35	18.714	15.604	51030	13	18.503	18.996	51104	34	14.985	21.282	51178	8	18.474	24.219	
50957*	60	22.124	15.388	51031	8	19.852	18.842	51105	22	15.164	21.922	51179	34	18.492	24.149	
50958	8	23.404	15.298	51032	27	20.172	18.225	51106	54	15.554	21.176	51180	14	18.604	24.542	
50959	8	24.862	15.045	51033	8	22.068	18.739	51107	25	18.925	21.614	51181	37	19.256	24.544	
50960	8	25.322	15.351	51034	11	22.444	18.321	51108	8	21.926	21.898	51182	8	19.404	24.230	
50961	21	1.468	16.778	51035	41	24.320	18.300	51109	8	22.104	21.656	51183	9	19.536	24.034	
50962	8	2.333	16.614	51036	8	24.415	18.414	51110	12	22.400	21.298	51184	11	19.568	24.846	
50963	34	3.314	16.419	51037	9	0.822	19.828	51111	8	23.964	21.546	51185	17	21.065	24.158	
50964	9	4.000	16.596	51038	9	0.944	19.784	51112	8	24.129	21.353	51186	23	21.536	24.091	
50965	18	4.294	16.952	51039	19	2.768	19.186	51113	50	25.894	21.298	51187*	58	22.286	24.900	
50966	8	4.650	16.033	51040	24	3.804	19.874	51114	8	2.035	22.246	51188*	68	22.781	24.558	
50967	10	4.715	16.456	51041	8	4.615	19.800	51115	8	3.116	22.084	51189	8	25.400	24.671	
50968	23	5.691	16.634	51042	8	5.970	19.790	51116	11	3.334	22.448	51190	14	3.372	25.453	
50969	14	6.900	16.485	51043	8	7.830	19.276	51117	11	4.528	22.250	51191	36	3.724	25.123	
50970	8	6.929	16.437	51044	11	8.026	19.126	51118	8	4.614	22.705	51192	18	4.457	25.964	
50971	15	8.546	16.256	51045	11	8.681	19.032	51119	33	7.914	22.766	51193	9	5.604	25.762	
50972	21	10.807	16.143	51046	40	9.392	19.823	51120	8	9.554	22.509	51194	8	5.650	25.013	
50973	8	10.908	16.849	51047	12	9.796	19.335	51121	8	10.642	22.538	51195	18	6.376	25.084	
50974	10	13.392	16.486	51048	12	10.521	19.048	51122	33	11.476	22.456	51196	24	8.026	25.957	
50975*	55	13.446	16.914	51049	8	11.186	19.098	51123	8	11.844	22.952	51197	8	9.818	25.514	
50976	8	16.440	16.969	51050	15	11.436	19.556	51124	13	12.130	22.781	51198	8	10.469	25.448	
50977	12	16.800	16.948	51051	8	11.529	19.237	51125	23	13.097	22.894	51199	8	10.629	25.424	
50978	8	19.068	16.056	51052	45	11.756	19.961	51126	14	13.866	22.845	51200	30	11.116	25.046	
50979	33	19.620	16.605	51053	9	11.823	19.344	51127	8	14.164	22.776	51201	26	11.234	25.014	
50980	16	20.940	16.254	51054	11	12.078	19.518	51128	8	14.277	22.902	51202	15	11.936	25.670	
50981	8	21.074	16.730	51055	14	12.880	19.048	51129	8	14.627	22.084	51203	8	15.501	25.236	
50982	8	21.275	16.208	51056	8	14.956	19.864	51130	8	14.697	22.442	51204	8	15.920	25.366	
50983	12	21.926	16.256	51057	8	15.604	19.294	51131	8	14.894	22.098	51205	29	16.166	25.726	
50984	8	24.248	16.064	51058	22	15.725	19.004	51132	8	15.415	22.974	51206	45	16.230	25.999	
50985	36	0.748	17.397	51059	8	16.186	19.372	51133	24	16.756	22.216	51207	8	16.426	25.956	
50986	16	1.190	17.892	51060	8	17.148	19.841	51134	8	16.876	22.390	51208	8	16.564	25.502	
50987	15	1.894	17.472	51061	8	17.354	19.116	51135	24	17.714	22.321	51209	9	18.104	25.7	



51306	20	10.539	3.668	51380*	24	1.477	10.405	51454	8	21.748	16.828	51528	8	10.220	23.356	51617	8	13.207	1.516
51307	16	11.168	3.722	51381	24	2.170	10.302	51455*	26	22.887	16.222	51529	8	10.860	23.670	51618	8	13.876	1.316
51308	10	11.890	3.739	51382	20	2.508	10.005	51456	13	25.870	16.528	51530	18	12.956	23.148	51619	15	14.674	1.223
51309	8	11.969	3.128	51383	20	2.710	10.977	51457	10	1.536	17.760	51531	9	13.962	23.563	51620	9	16.016	1.980
51310	15	12.922	3.462	51384	8	11.258	10.402	51458	14	1.615	17.886	51532	8	16.204	23.652	51621	11	17.521	1.006
51311*	36	13.736	3.646	51385	11	11.703	10.357	51459	7	2.054	17.860	51533	7	16.413	23.346	51622	16	17.625	1.365
51312	11	19.600	3.971	51386	19	12.542	10.864	51460	8	3.703	17.306	51534	6	18.524	23.189	51623	9	17.632	1.428
51313	9	22.614	3.290	51387	10	13.348	10.018	51461	13	5.940	17.507	51535	23	19.478	23.593	51624	13	17.684	1.142
51314*	34	4.684	4.936	51388	11	17.700	10.870	51462	8	7.502	17.396	51536	16	24.266	23.070	51625	16	17.738	1.917
51315	9	8.668	4.088	51389	15	18.093	10.251	51463	9	9.287	17.574	51537	19	24.468	23.354	51626	8	18.045	1.964
51316	12	8.766	4.516	51390	10	1.994	11.853	51464	8	13.142	17.024	51538	25	25.905	23.210	51627	8	18.725	1.407
51317	13	12.480	4.854	51391	7	2.065	11.378	51465	15	14.561	17.858	51539	8	1.709	24.121	51628	24	19.194	1.750
51318	8	13.120	4.758	51392*	60	3.932	11.124	51466*	60	16.346	17.661	51540	7	4.166	24.936	51629	10	20.103	1.936
51319	10	17.186	4.662	51393	10	5.628	11.522	51467	7	17.523	17.766	51541	12	9.580	24.147	51630	10	20.644	1.560
51320	8	17.366	4.967	51394	8	9.736	11.547	51468	17	18.470	17.573	51542	7	12.368	24.275	51631*	41	20.681	1.266
51321	8	20.814	4.314	51395	10	9.864	11.852	51469	8	20.936	17.684	51543*	28	16.546	24.306	51632	8	20.903	1.366
51322	8	25.924	4.265	51396	11	10.520	11.054	51470	14	24.713	17.104	51544	14	20.506	24.792	51633	15	21.520	1.164
51323	16	0.280	5.461	51397	14	11.165	11.565	51471	13	1.674	18.995	51545	20	22.524	24.852	51634	15	22.080	1.984
51324	11	0.764	5.806	51398	10	11.230	11.314	51472	10	6.776	18.664	51546	36	0.225	25.324	51635	9	22.500	1.765
51325	9	4.204	5.864	51399	9	13.952	11.950	51473	9	10.382	18.770	51547	11	5.298	25.850	51636	20	22.881	1.800
51326	10	4.848	5.166	51400	9	16.022	11.695	51474*	40	15.231	18.942	51548	14	6.530	25.297	51637	8	24.298	1.626
51327	9	6.400	5.164	51401	8	17.684	11.985	51475	10	15.650	18.985	51549	10	7.392	25.063	51638	8	24.650	1.905
51328	15	6.860	5.456	51402	8	18.511	11.705	51476	14	22.274	18.586	51550*	39	10.600	25.440	51639	16	25.154	1.134
51329	9	7.465	5.207	51403	8	20.521	11.618	51477	10	23.826	18.455	51551	20	10.602	25.760	51640	24	0.152	2.140
51330	9	10.296	5.764	51404	9	21.775	11.848	51478	17	24.320	18.930	51552	8	11.792	25.660	51641	17	6.160	2.754
51331	11	14.230	5.884	51405	8	1.091	12.588	51479	8	3.784	19.388	51553	16	14.236	25.200	51642	8	7.520	2.075
51332	9	14.487	5.150	51406	7	1.198	12.214	51480	9	6.813	19.663	51554*	12	16.054	25.416	51643	8	8.638	2.088
51333	8	15.776	5.576	51407	8	4.234	12.522	51481	8	13.272	19.134	51555*	24	17.988	25.108	51644	8	8.880	2.064
51334	17	16.089	5.031	51408	9	8.914	12.956	51482*	64	17.085	19.975	51556	7	19.849	25.900	51645	13	9.818	2.148
51335	10	19.382	5.648	51409	21	11.711	12.935	51483	9	17.540	19.750	51557	10	20.996	25.750	51646	8	9.906	2.444
51336	9	22.116	5.178	51410	27	14.468	12.508	51484	8	22.083	19.581	51558	10	24.007	25.632	51647	10	11.206	2.448
51337	9	1.388	6.558	51411	8	16.593	12.022	51485	20	22.244	19.533	51559	11	24.267	25.563	51648	10	12.058	2.570
51338	15	1.783	6.650	51412*	11	18.718	12.022	51486	8	24.886	19.366					51649	9	13.055	2.118
51339	10	2.832	6.037	51413	8	18.853	12.448	51487	23	0.906	20.737					51650	10	13.874	2.768
51340	12	3.830	6.702	51414	10	19.820	12.247	51488	12	2.381	20.394					51651	8	16.130	2.902
51341	13	4.593	6.470	51415	8	24.368	12.689	51489	8	2.424	20.054					51652	14	17.900	2.710
51342	15	10.887	6.736	51416	14	25.060	12.318	51490	9	6.556	20.962					51653	15	17.968	2.124
51343	8	11.207	6.546	51417	15	25.685	12.090	51491	13	9.367	20.329					51654	15	17.988	2.108
51344*	36	12.378	6.211	51418	8	25.735	12.805	51492	12	10.732	20.470					51655	12	17.994	2.084
51345	8	17.887	6.632	51419	12	5.326	13.547	51493	11	10.822	20.636					51656*	33	18.072	2.112
51346	24	20.798	6.883	51420	16	6.942	13.494	51494	18	12.700	20.786					51657	8	18.259	2.411
51347	10	21.446	6.078	51421	17	8.176	13.842	51495	11	19.650	20.155					51658	26	18.499	2.118
51348	7	21.833	6.735	51422	11	13.550	13.075	51496	9	22.449	20.352					51659	10	18.791	2.992
51349	11	23.164	6.367	51423	8	15.502	13.608	51497	22	3.309	21.995					51660	11	18.891	2.146
51350	8	0.380	7.257	51424	23	17.400	13.730	51498	21	4.210	21.753					51661	9	19.475	2.625
51351	14	1.693	7.230	51425	8	19.050	13.020	51499*	20	4.748	21.964					51662	10	19.968	2.030
51352	13	4.092	7.550	51426	9	19.754	13.876	51500	12	4.895	21.174					51663	12	21.252	2.878
51353	14	6.054	7.080	51427*	36	20.652	13.160	51501	7	5.088	21.748					51664	11	21.465	2.167
51354	18	8.664	7.162	51428	13	22.814	13.535	51502	21	6.313	21.875					51665	8	21.904	2.428
51355	10	10.771	7.387	51429	23	1.554	14.378	51503	10	10.287	21.628					51666	9	22.213	2.956
51356	8	14.878	7.162	51430	9	1.692	14.526	51504	10	10.550	21.615					51667	8	23.250	2.114
51357	7	15.768	7.302	51431	10	2.088	14.954	51505	18	11.387	21.768					51668	8	23.461	2.919
51358	12	18.376	7.539	51432	8	5.490	14.543	51506	8	11.757	21.350					51669	9	23.921	2.764
51359	8	18.608	7.741	51433*	58	11.512	14.633	51507	8	12.411	21.601					51670	8	23.957	2.336
51360	18	19.791	7.918	51434	10	14.074	14.654	51508	14	14.170	21.896					51671	8	24.631	2.949
51361	9	23.938	7.740	51435*	19	14.239	14.297	51509	17	15.736	21.159					51672	11	25.467	2.508
51362	26	0.482	8.851	51436	8	14.746	14.890	51510	7	20.533	21.320					51673	8	7.385	3.208
51363	8	2.086	8.487	51437	13	21.731	14.050	51511	21	23.414	21.954					51674	8	8.282	3.908
51364	7	2.292	8.446	51438	8	22.958	14.688	51512	22	5.288	22.402					51675	8	11.146	3.076
51365	19	4.600	8.586	51439	8	0.242	15.298	51513*	21	7.978	22.037					51676	8	11.161	3.849
51366	8	4.888	8.690	51440	13	1.260	15.536	51514	10	7.996	22.142					51677	20	11.243	3.256
51367	10	5.357	8.130	51441	8	4.284	15.576	51515	26	8.836	22.110					51678	10	12.946	3.203
51368	8	21.249	8.434	51442	8	11.234	15.442	51516	13	10.688	22.038					51679	8	13.082	3.018
51369	8	3.557	9.223	51443	18	12.625	15.540	51517	12	13.373	22.034					51680	8	13.556	3.626
51370	8	8.043	9.755	51444	8	13.785	15.307	51518	8	13.994	22.162					51681	16	13.660	3.624
51371	8	8.098	9.919	51445	17	15.446	15.152	51519*	29	14.179	22.712					51682	8	14.091	3.580
51372	10	14.047	9.060	51446	7	5.252	16.154	51520	16	20.342	22.054					51683	8	14.454	3.959



51691	8	19-132	3-827	51765	14	19-232	5-814	51839	19	22-402	7-912	51913	10	14-362	10-980	51987	12	16-346	13-834
51692	8	19-570	3-240	51766	13	19-828	5-386	51840	24	23-668	7-938	51914*	49	14-790	10-010	51988	10	18-880	13-888
51693	11	19-603	3-585	51767*	65	20-164	5-670	51841	8	23-729	7-852	51915	9	14-870	10-232	51989	8	19-750	13-892
51694	22	19-634	3-200	51768	13	21-282	5-610	51842	23	25-078	7-704	51916*	64	14-994	10-898	51990	10	21-133	13-740
51695	8	19-848	3-825	51769	9	21-544	5-162	51843	17	25-501	7-516	51917	21	16-366	10-008	51991	10	21-300	13-910
51696	10	21-462	3-570	51770	8	21-608	5-013	51844	21	25-931	7-076	51918	11	16-690	10-826	51992	8	21-937	13-902
51697	8	21-481	3-456	51771	12	22-550	5-558	51845	10	4-242	8-664	51919	10	17-247	10-378	51993	10	22-152	13-153
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51699	11	22-538	3-693	51773	11	22-835	5-234	51847	10	6-688	8-942	51921	15	19-190	10-944	51995	8	22-430	13-737
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51701	13	23-470	3-308	51775	12	24-061	5-112	51849*	28	7-490	8-476	51923	10	20-919	10-330	51997	8	25-232	13-311
51702	11	24-392	3-922	51776	9	24-663	5-693	51850	11	8-210	8-002	51924	11	21-982	10-568	51998	10	25-550	13-620
51703	15	25-095	3-065	51777	9	24-984	5-048	51851	24	9-820	8-305	51925	8	23-165	10-618	51999	8	25-942	14-544
51704	10	25-382	3-104	51778	10	0-506	6-588	51852	8	10-283	8-454	51926	8	24-748	10-180	52000	8	6-861	14-880
51705	8	25-565	3-091	51779	8	0-789	6-840	51853	8	14-742	8-549	51927	21	25-128	10-990	52001*	95	7-058	14-814
51706	8	25-646	3-712	51780	8	2-627	6-208	51854	14	14-918	8-544	51928	19	25-820	10-114	52002	10	7-248	14-718
51707	8	0-160	4-365	51781	8	3-128	6-668	51855	21	16-269	8-688	51929	8	25-984	10-300	52003	9	9-851	14-936
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51709	17	6-698	4-046	51783	16	4-876	6-457	51857	11	17-666	8-986	51931	10	4-754	11-539	52005	10	11-346	14-139
51710	10	6-924	4-234	51784*	62	8-904	6-095	51858	10	18-214	8-676	51932*	38	12-243	11-066	52006	8	11-906	14-096
51711	9	8-163	4-487	51785*	30	8-946	6-955	51859	8	18-380	8-611	51933	18	13-538	11-916	52007	8	12-690	14-922
51712	9	10-650	4-327	51786	10	9-234	6-550	51860	8	18-384	8-288	51934	8	15-348	11-121	52008	8	14-664	14-068
51713	8	10-886	4-954	51787	8	10-078	6-929	51861	8	18-662	8-176	51935*	64	18-270	11-719	52009*	29	15-282	14-624
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51715	11	12-243	4-225	51789	22	10-586	6-814	51863	16	20-138	8-297	51937	8	19-871	11-907	52011	8	15-750	14-156
51716	14	12-320	4-151	51790	8	11-789	6-984	51864	8	20-196	8-936	51938	8	20-221	11-886	52012	11	16-038	14-784
51717	10	13-502	4-819	51791	8	13-120	6-778	51865	9	21-155	8-652	51939	11	20-338	11-783	52013	12	16-514	14-470
51718*	37	13-778	4-262	51792	11	13-152	6-154	51866	10	21-170	8-252	51940	8	20-955	11-302	52014	8	16-565	14-102
51719	10	13-808	4-260	51793	12	13-386	6-488	51867	14	23-786	8-650	51941	27	21-474	11-216	52015	12	16-590	14-035
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51721	15	14-522	4-187	51795	22	14-533	6-618	51869	20	24-750	8-288	51943	10	22-356	11-611	52017	8	17-821	14-119
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51723	8	15-901	4-581	51797	9	15-275	6-546	51871	19	25-244	8-542	51945	9	24-334	11-993	52019	10	20-924	14-806
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51728	8	20-358	4-004	51802	8	16-810	6-502	51876	20	0-774	9-782	51950	9	3-146	12-996	52024	10	24-102	14-888
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51730*	28	21-190	4-500	51804	10	18-640	6-486	51878	9	4-461	9-207	51952	9	5-196	12-746	52026	9	25-638	14-476
51731	11	22-159	4-163	51805	18	19-295	6-204	51879	8	4-752	9-063	51953	9	5-202	12-610	52027*	29	3-526	15-356
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51739	9	5-394	5-192	51813	12	21-085	6-270	51887	8	13-667	9-839	51961	11	11-368	12-786	52035*	24	13-528	15-393
51740	12	5-648	5-345	51814	13	21-650	6-500	51888	8	14-234	9-501	51962	8	11-718	12-275	52036	19	14-074	15-721
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51742	10	6-841	5-800	51816	8	23-542	6-233	51890	17	14-731	9-988	51964	17	16-466	12-558	52038	38	15-334	15-870
51743	8	7-029	5-464	51817	18	25-502	6-079	51891*	34	14-778	9-918	51965	8	18-076	12-693	52039	8	15-406	15-439
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51745	8	8-650	5-913	51819	8	6-537	7-914	51893	10	16-393	9-597	51967	8	19-008	12-340	52041	10	17-688	15-250
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51747*	17	10-600	5-935	51821	10	11-400	7-846	51895	9	16-922	9-816	51969	9	19-828	12-741	52043	9	17-892	15-789
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51752	13	11-268	5-242	51826	8	15-410	7-260	51900	8	21-203	9-188	51974	8	25-880	12-698	52048	8	22-080	15-980
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51754	10																		



52061	8	13°038	16°994	52135	8	18°652	19°398	52209	8	4°761	22°724	52283	17	5°636	24°458	52357	28	25°186	25°562
52062	10	13°691	16°337	52136	9	18°654	19°682	52210	10	6°241	22°094	52284	9	5°751	24°338	52358	8	25°388	25°121
52063	8	14°084	16°054	52137	8	18°750	19°594	52211	12	13°546	22°062	52285	8	6°307	24°930	52359	10	25°548	25°676
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52065	17	17°275	16°590	52139	8	19°680	19°350	52213	8	18°576	22°424	52287	8	7°760	24°584				
52066	8	17°280	16°256	52140	14	20°192	19°966	52214	8	18°580	22°495	52288	9	8°156	24°536				
52067	8	17°995	16°890	52141	39	21°119	19°766	52215	18	18°872	22°528	52289	8	9°188	24°068				
52068	9	18°587	16°128	52142	10	21°304	19°966	52216	12	18°986	22°148	52290*	25	9°936	24°438				
52069	8	20°320	16°728	52143	13	21°442	19°058	52217	8	19°486	22°989	52291	14	10°640	24°529				
52070	22	20°952	16°498	52144	16	22°713	19°136	52218	8	19°576	22°948	52292	8	12°570	24°166				
52071	20	21°194	16°446	52145	9	23°484	19°122	52219	9	20°046	22°171	52293	16	12°862	24°240				
52072	10	22°350	16°692	52146	9	24°769	19°059	52220	12	20°732	22°336	52294	11	12°983	24°110				
52073	8	23°175	16°297	52147	10	1°332	20°721	52221	12	22°228	22°818	52295	12	13°097	24°825				
52074	23	23°207	16°337	52148	8	1°963	20°725	52222	8	22°326	22°650	52296	8	13°248	24°278				
52075	9	23°778	16°480	52149	19	3°746	20°926	52223	9	22°981	22°914	52297	9	14°194	24°100				
52076	8	25°458	16°516	52150	18	4°380	20°477	52224	23	23°739	22°226	52298	11	14°264	24°924				
52077	8	25°632	16°266	52151	10	5°180	20°664	52225	8	24°942	22°371	52299	11	15°350	24°962				
52078	14	25°950	16°093	52152	13	8°020	20°706	52226	9	25°556	22°361	52300	10	16°060	24°335				
52079	12	2°168	17°306	52153	9	8°920	20°001	52227	11	25°634	22°590	52301	8	17°360	24°174				
52080	10	3°980	17°940	52154	8	9°065	20°861	52228	8	25°783	22°549	52302	10	18°518	24°200				
52081	8	6°020	17°172	52155	8	11°494	20°710	52229	8	1°706	23°568	52303	29	18°598	24°650				
52082	12	7°921	17°799	52156	13	12°327	20°459	52230	17	1°780	23°274	52304	11	19°090	24°450				
52083	8	8°380	17°702	52157	8	14°612	20°058	52231	17	1°988	23°556	52305	35	19°131	24°307				
52084	10	11°578	17°376	52158	12	17°050	20°530	52232	23	3°426	23°396	52306	27	19°330	24°170				
52085	10	14°080	17°420	52159	14	17°473	20°339	52233	10	3°571	23°258	52307	8	19°336	24°633				
52086	8	16°062	17°818	52160	8	18°336	20°107	52234	25	3°951	23°380	52308	10	19°950	24°352				
52087*	37	16°531	17°491	52161	8	18°752	20°442	52235	10	4°294	23°996	52309	8	19°970	24°259				
52088	9	16°854	17°823	52162	11	19°070	20°612	52236	8	5°490	23°048	52310	24	21°730	24°172				
52089*	37	19°504	17°410	52163	11	19°108	20°554	52237	8	6°053	23°282	52311	8	22°078	24°874				
52090*	27	20°925	17°864	52164	13	19°112	20°156	52238	11	6°408	23°713	52312	25	22°340	24°608				
52091	15	21°602	17°112	52165	11	19°540	20°706	52239	9	6°884	23°203	52313	10	22°980	24°530				
52092	10	21°826	17°403	52166	9	20°009	20°219	52240	8	6°980	23°127	52314	21	23°546	24°617				
52093	10	22°528	17°602	52167	9	20°771	20°302	52241	14	7°213	23°190	52315	36	25°615	24°233				
52094	28	24°116	17°576	52168	8	21°360	20°630	52242	9	7°222	23°958	52316	8	25°812	24°527				
52095	8	24°341	17°494	52169	10	22°233	20°650	52243	12	7°352	23°758	52317	18	25°995	24°284				
52096	8	25°540	17°118	52170	8	22°436	20°272	52244	12	7°599	23°026	52318	20	0°059	25°070				
52097	15	25°736	17°134	52171	12	22°652	20°152	52245	9	7°708	23°330	52319	10	1°550	25°840				
52098	8	25°958	17°683	52172	9	23°062	20°140	52246	8	8°483	23°028	52320	13	1°808	25°768				
52099	9	1°296	18°663	52173	10	23°130	20°857	52247	10	8°712	23°770	52321	8	1°960	25°262				
52100	9	5°035	18°590	52174	9	23°770	20°313	52248	8	9°166	23°303	52322	8	4°056	25°774				
52101	8	8°318	18°876	52175	8	24°250	20°364	52249	13	9°487	23°982	52323	26	4°239	25°665				
52102	8	8°942	18°954	52176	10	25°610	20°570	52250	10	9°562	23°031	52324*	27	6°706	25°080				
52103*	36	10°018	18°958	52177	10	6°893	21°006	52251	8	10°888	23°822	52325	8	7°862	25°162				
52104	13	11°283	18°490	52178	9	7°954	21°816	52252	8	10°940	23°902	52326	11	11°105	25°458				
52105	10	12°548	18°724	52179*	23	9°066	21°546	52253	8	12°238	23°503	52327	11	12°368	25°586				
52106	9	12°939	18°882	52180	10	10°482	21°360	52254	9	13°919	23°968	52328	8	12°460	25°522				
52107	12	13°018	18°984	52181*	33	13°673	21°610	52255	11	14°783	23°272	52329	8	14°064	25°937				
52108	8	13°280	18°368	52182	15	13°888	21°441	52256	8	15°021	23°129	52330	10	14°108	25°501				
52109	20	13°390	18°648	52183	11	14°168	21°634	52257*	21	15°187	23°790	52331	11	14°562	25°270				
52110	13	13°735	18°296	52184	12	14°300	21°860	52258	19	19°223	23°840	52332	9	14°900	25°756				
52111	15	14°223	18°180	52185*	56	14°716	21°900	52259	8	19°590	23°420	52333	9	14°988	25°471				
52112*	27	16°232	18°700	52186	8	14°942	21°980	52260	8	19°722	23°494	52334	8	15°210	25°834				
52113	9	16°584	18°800	52187	22	15°039	21°621	52261	10	19°771	23°523	52335	8	15°400	25°818				
52114	14	19°850	18°956	52188	10	16°220	21°744	52262	10	19°830	23°928	52336	13	15°473	25°694				
52115	8	20°666	18°308	52189	8	16°856	21°948	52263	23	20°540	23°912	52337	10	15°818	25°114				
52116	17	20°998	18°450	52190	9	18°500	21°749	52264	23	20°760	23°160	52338	10	18°664	25°583				
52117	8	23°601	18°170	52191	10	19°228	21°602	52265	9	20°864	23°024	52339	10	18°732	25°606				
52118	11	23°666	18°036	52192	8	19°300	21°236	52266	8	21°232	23°876	52340	8	18°856	25°628				
52119	9	24°194	18°340	52193	18	19°402	21°620	52267	10	21°979	23°060	52341	8	19°424	25°181				
52120	8	25°374	18°474	52194	9	19°452	21°427	52268	15	22°038	23°082	52342	13	19°929	25°754				
52121	8	25°578	18°540	52195	8	19°653	21°242	52269	8	22°646	23°018	52343	17	19°968	25°952				
52122	20	1°792	19°134	52196	14	19°848	21°044	52270	11	22°756	23°460	52344	11	20°730	25°512				
52123	8	2°366	19°564	52197	8	20°680	21°866	52271	8	22°826	23°200	52345	8	20°760	25°536				
52124	8	4°787	19°863	52198	37	22°862	21°651	52272	10	22°970	23°090	52346	8	21°211	25°188				
52125	24	6°906	19°418	52199	10	23°740	21°786	52273	8	23°034	23°538	52347	14	22°336	25°804				
52126	8	9°873	19°148	52200	13	24°299	21°502	52274	21	23°680	23°783	52348	14	22°423	25°139				
52127	10	10°052	19°420	52201	16	24°565	21°540	52275	26	24°112	23°736	52349	8	22°468	25°593				
52128	8	10°464	19°640	52202	18	24°687	21°872	52276	9	24°492	23°988	52350	20	22°820	25°835				
52129	8	10°579	19°291	52203	8	24°836	21°082	52277	15	24°515	23°095	52351	8	23°058	25°666				
52130*	21	12°289	19°249	52204	8	24°885	21°018												



52446	8	13.244	1.286	52520	8	25.027	3.464	52594	8	11.341	6.525	52668	18	10.294	9.659	52742	8	9.696	11.288
52447	16	16.530	1.094	52521	9	1.827	4.136	52595	9	13.205	6.714	52669	8	10.294	9.165	52743	11	9.724	11.287
52448	11	16.835	1.728	52522	18	2.630	4.546	52596	10	13.795	6.349	52670	18	10.400	9.729	52744	8	10.100	11.380
52449*	34	17.805	1.514	52523	20	3.715	4.928	52597	10	15.215	6.384	52671	10	11.116	9.194	52745	8	11.046	11.823
52450*	27	17.986	1.656	52524	8	4.335	4.098	52598	8	17.365	6.926	52672	10	11.168	9.072	52746	8	11.046	11.206
52451	11	18.165	1.984	52525	12	6.520	4.210	52599	8	18.620	6.876	52673	8	11.296	9.616	52747	8	11.616	11.210
52452	20	19.413	1.497	52526	12	6.922	4.814	52600	8	20.805	6.052	52674	8	11.372	9.924	52748*	24	12.406	11.492
52453	8	21.064	1.905	52527	8	7.516	4.313	52601	8	21.386	6.510	52675	12	11.590	9.686	52749	10	15.280	11.456
52454*	32	21.214	1.716	52528	8	7.714	4.421	52602	8	23.679	6.536	52676	8	11.611	9.040	52750	8	15.833	11.736
52455	18	21.412	1.825	52529	8	9.899	4.670	52603	8	24.375	6.624	52677	14	11.646	9.366	52751	8	16.666	11.924
52456*	16	21.897	1.606	52530*	28	11.822	4.234	52604	10	24.816	6.944	52678	8	11.797	9.021	52752	10	17.683	11.131
52457	8	22.118	1.302	52531*	24	11.833	4.952	52605	11	24.844	6.485	52679	12	12.329	9.296	52753	8	17.775	11.276
52458	8	22.194	1.207	52532	8	11.913	4.245	52606	8	25.134	6.954	52680	8	14.256	9.487	52754	8	18.750	11.464
52459*	37	22.283	1.476	52533	8	12.016	4.922	52607	9	25.615	6.703	52681	32	14.348	9.182	52755	20	19.563	11.007
52460	8	22.754	1.251	52534	12	12.045	4.879	52608	18	2.546	7.917	52682	8	14.736	9.763	52756	10	20.763	11.354
52461	20	23.016	1.667	52535	14	12.055	4.424	52609	14	2.970	7.724	52683*	32	15.973	9.189	52757	12	23.154	11.816
52462	8	25.648	1.964	52536	11	12.766	4.118	52610	18	3.396	7.281	52684	8	16.200	9.316	52758	8	23.476	11.035
52463	9	25.671	1.786	52537	12	13.204	4.414	52611	8	5.368	7.166	52685*	34	16.283	9.136	52759	12	24.247	11.696
52464	13	0.297	2.028	52538	9	14.538	4.497	52612	8	9.624	7.422	52686	8	16.502	9.950	52760	9	24.275	11.208
52465	8	1.346	2.981	52539	8	15.094	4.657	52613*	38	9.975	7.497	52687	8	16.908	9.856	52761	8	24.633	11.704
52466	9	2.892	2.716	52540*	39	16.307	4.951	52614	8	10.688	7.686	52688	8	18.530	9.638	52762	8	25.384	11.320
52467	13	5.077	2.194	52541	15	16.347	4.844	52615	15	12.193	7.680	52689	13	21.210	9.276	52763	37	25.556	11.852
52468*	30	5.100	2.286	52542	8	16.389	4.326	52616	8	12.470	7.695	52690	11	21.500	9.755	52764	8	0.561	12.716
52469	25	5.772	2.408	52543	8	20.245	4.057	52617	8	15.206	7.560	52691	8	24.088	9.538	52765	8	1.867	12.893
52470	12	6.253	2.544	52544	8	20.246	4.723	52618	8	15.272	7.552	52692	11	24.102	9.883	52766	27	6.116	12.706
52471	19	8.625	2.025	52545	17	21.213	4.847	52619	8	18.802	7.466	52693	8	25.165	9.926	52767*	37	6.935	12.846
52472	8	8.814	2.977	52546	9	21.380	4.687	52620	9	19.268	7.573	52694	12	25.206	9.314	52768	9	8.354	12.686
52473	9	9.086	2.058	52547	8	21.546	4.154	52621	10	20.236	7.235	52695	8	2.242	10.395	52769	11	9.576	12.855
52474*	25	11.293	2.223	52548	9	22.903	4.793	52622	8	21.748	7.872	52696	13	3.308	10.318	52770	25	10.830	12.960
52475	11	12.751	2.450	52549	9	22.963	4.106	52623	11	22.667	7.812	52697	17	4.005	10.909	52771*	25	11.256	12.340
52476	13	13.234	2.786	52550	9	23.069	4.817	52624	17	24.468	7.534	52698	8	4.216	10.298	52772	8	13.304	12.760
52477	11	15.509	2.528	52551	8	23.807	4.566	52625	8	24.626	7.454	52699	9	4.442	10.199	52773	22	14.164	12.473
52478	9	17.192	2.865	52552	11	0.614	5.748	52626	9	25.706	7.114	52700*	23	5.972	10.778	52774	8	14.559	12.908
52479	8	18.276	2.125	52553	8	1.504	5.327	52627	29	25.848	7.949	52701	11	6.042	10.758	52775	9	14.899	12.104
52480	9	18.602	3.326	52554	8	3.671	5.327	52628	32	1.136	8.163	52702	9	6.472	10.785	52776	8	16.068	12.280
52481	10	18.806	2.155	52555	8	4.176	5.370	52629	13	1.263	8.874	52703	10	7.656	10.492	52777	15	16.462	12.566
52482	9	19.130	2.402	52556	8	6.003	5.902	52630	17	2.224	8.504	52704*	34	8.287	10.845	52778	8	16.652	12.306
52483	8	20.940	2.542	52557	8	6.078	5.530	52631	9	2.719	8.754	52705	15	8.955	10.157	52779	11	18.208	12.278
52484	8	20.950	2.375	52558	14	6.488	5.584	52632	9	2.731	8.916	52706	23	9.524	10.995	52780	8	20.872	12.872
52485	10	21.014	2.447	52559	13	10.352	5.527	52633	8	3.036	8.510	52707	8	9.766	10.560	52781*	24	23.993	12.534
52486	13	21.497	2.014	52560	8	11.083	5.463	52634	8	5.269	8.452	52708	12	10.415	10.334	52782	13	25.924	12.083
52487	10	21.841	2.544	52561	16	13.216	5.661	52635	19	5.536	8.134	52709	8	10.644	10.324	52783	12	2.370	13.335
52488	8	21.940	2.304	52562	8	14.325	5.820	52636	8	6.476	8.324	52710	8	11.024	10.500	52784	8	3.071	13.824
52489	24	22.054	2.301	52563	9	14.427	5.684	52637	8	7.098	8.773	52711	12	11.510	10.127	52785	8	4.778	13.596
52490	8	22.065	2.145	52564	8	15.150	5.925	52638	8	8.316	8.214	52712	16	11.857	10.118	52786	8	7.203	13.857
52491	10	22.098	2.707	52565*	34	15.420	5.023	52639	8	8.733	8.382	52713	13	12.186	10.025	52787	10	8.801	13.864
52492	8	22.404	2.576	52566	12	15.563	5.635	52640	12	10.628	8.168	52714	10	14.403	10.593	52788	8	9.945	13.170
52493	20	25.658	2.273	52567	8	16.244	5.301	52641	10	11.084	8.976	52715	8	16.230	10.812	52789	8	10.434	13.114
52494	8	0.900	3.534	52568*	22	16.328	5.821	52642	22	11.994	8.904	52716	9	16.470	10.928	52790	8	11.184	13.942
52495	10	2.524	3.276	52569	8	18.706	5.693	52643	10	13.034	8.654	52717	12	16.620	10.126	52791	11	11.372	13.042
52496	8	2.808	3.314	52570	12	19.104	5.726	52644	8	14.657	8.648	52718	8	16.749	10.768	52792	14	11.838	13.578
52497	8	3.696	3.196	52571	9	20.108	5.814	52645	8	15.012	8.686	52719	22	17.218	10.241	52793	9	13.223	13.448
52498	10	6.286	3.051	52572	18	20.486	5.196	52646	9	15.994	8.280	52720	12	17.627	10.512	52794	22	15.236	13.882
52499	9	6.794	3.534	52573	8	21.992	5.340	52647	8	17.284	8.246	52721	8	18.522	10.614	52795	8	15.348	13.118
52500	8	7.574	3.787	52574*	40	22.477	5.837	52648	10	17.340	8.626	52722	8	19.450	10.911	52796	11	15.546	13.786
52501	8	7.661	3.767	52575*	36	22.697	5.818	52649	11	18.254	8.664	52723	10	19.498	10.574	52797	11	18.010	13.738
52502	10	7.786	3.548	52576	8	22.758	5.612	52650	8	19.905	8.450	52724	12	20.662	10.694	52798	20	18.359	13.636
52503	8	11.559	3.944	52577*	45	24.083	5.245	52651	8	20.992	8.101	52725	8	22.574	10.371	52799*	31	18.879	13.806
52504	13	11.858	3.564	52578	8	25.715	5.623	52652	8	21.479	8.414	52726	8	23.696	10.992	52800*	31	19.065	13.884
52505	23	12.554	3.646	52579	13	2.956	6.286	52653	14	22.044	8.478	52727	24	24.126	10.074	52801	25	19.675	13.242
52506	8	12.589	3.648	52580	8	3.811	6.573	52654	36	24.198	8.536	52728	8	0.580	11.984	52802	8	20.092	13.098
52507	8	12.669	3.836	52581	8	4.276	6.236	52655	8	24.907	8.144	52729	15	2.626	11.201	52803	12	20.772	13.058
52508	9	13.876	3.085	52582	14	4.366	6.505	52656	10	0.906	9.346	52730	8	3.286	11.462	52804	8	20.853	13.464
52509	8	15.210	3.735	52583	8	5.284	6.158	52657	8	2.422									



52816*	37	5.564	14.426	52890	21	20.885	16.387	52964	12	5.362	19.161	53038	8	5.150	21.353	53112	24	9.448	23.689
52817	16	6.597	14.340	52891	11	21.672	16.342	52965	17	5.434	19.863	53039	9	7.202	21.664	53113	8	10.533	23.697
52818	8	6.973	14.286	52892	8	22.050	16.244	52966	12	6.860	19.536	53040	12	8.054	21.696	53114	8	10.832	23.836
52819	8	7.268	14.697	52893	10	22.638	16.402	52967	21	8.946	19.952	53041	9	10.252	21.077	53115	17	11.324	23.162
52820	27	7.502	14.406	52894*	37	23.612	16.504	52968	11	10.061	19.770	53042	8	10.386	21.848	53116	8	11.558	23.856
52821	8	7.650	14.486	52895	13	23.676	16.696	52969	8	10.144	19.108	53043	8	11.769	21.916	53117	14	12.486	23.237
52822	25	7.944	14.194	52896	20	24.016	16.740	52970	9	10.527	19.750	53044	11	11.840	21.544	53118	8	12.884	23.337
52823	11	9.563	14.503	52897	8	25.294	16.081	52971	11	11.612	19.126	53045	8	12.363	21.475	53119	10	13.029	23.750
52824	8	9.896	14.573	52898	10	25.454	16.026	52972	12	13.679	19.847	53046	8	15.138	21.640	53120	8	13.258	23.198
52825	21	10.238	14.086	52899	8	25.534	16.855	52973	20	14.230	19.772	53047	13	15.172	21.692	53121	14	13.289	23.736
52826	8	13.052	14.713	52900	28	1.668	17.796	52974*	41	14.416	19.478	53048	8	16.256	21.944	53122	8	15.266	23.730
52827	8	13.936	14.360	52901	10	3.286	17.340	52975	33	16.436	19.794	53049	8	16.602	21.268	53123	35	15.902	23.452
52828*	22	14.750	14.474	52902*	33	3.810	17.477	52976	8	17.196	19.549	53050*	21	17.553	21.718	53124	9	16.404	23.177
52829	8	15.786	14.801	52903	18	4.689	16.326	52977	8	17.951	19.978	53051	8	18.761	21.592	53125	15	16.864	23.008
52830	8	16.434	14.365	52904	10	5.051	17.224	52978	24	18.105	19.020	53052	12	19.652	21.659	53126	8	17.536	23.626
52831	31	16.702	14.945	52905	11	5.272	17.024	52979	8	18.598	19.745	53053	12	21.188	21.977	53127	8	17.582	23.650
52832	11	18.245	14.836	52906	8	5.556	17.250	52980	8	20.840	19.134	53054	10	21.202	21.076	53128	16	17.661	23.207
52833	17	18.378	14.617	52907	11	8.046	17.159	52981	17	21.483	19.074	53055	8	21.729	21.044	53129	8	17.708	23.422
52834	12	18.615	14.356	52908	12	8.118	17.797	52982	8	23.333	19.465	53056	12	23.093	21.151	53130	8	17.748	23.366
52835*	37	18.630	14.046	52909	8	8.449	17.399	52983	8	24.823	19.056	53057	22	23.353	21.674	53131	8	17.750	23.912
52836	8	18.666	14.854	52910	11	8.853	17.184	52984	8	25.283	19.819	53058	24	23.726	21.080	53132	10	17.802	23.478
52837	8	18.686	14.103	52911	8	9.125	17.004	52985	20	25.942	19.510	53059	8	24.954	21.878	53133	9	18.080	23.554
52838	14	18.762	14.862	52912	8	9.415	17.462	52986	11	0.234	20.384	53060	28	25.078	21.143	53134	8	18.686	23.205
52839	8	18.812	14.174	52913	26	10.005	17.424	52987	8	0.642	20.372	53061	20	1.336	22.450	53135	9	18.936	23.353
52840	16	18.882	14.414	52914*	64	11.017	17.584	52988	8	1.350	20.536	53062	10	2.284	22.084	53136	12	19.724	23.028
52841	13	18.904	14.344	52915	8	11.256	17.429	52989	8	1.833	20.582	53063	8	3.234	22.794	53137	14	19.865	23.408
52842	10	19.014	14.187	52916	8	14.738	17.048	52990	8	3.195	20.775	53064	8	3.816	22.514	53138	8	21.308	23.752
52843*	22	19.434	14.568	52917	8	15.316	17.166	52991	12	3.844	20.973	53065	8	3.951	22.186	53139	8	22.234	23.173
52844*	34	20.209	14.532	52918	11	15.446	17.276	52992	13	4.611	20.874	53066	9	6.048	22.938	53140*	40	23.720	23.796
52845*	31	20.344	14.398	52919	8	17.364	17.435	52993	11	4.685	20.810	53067	10	6.324	22.356	53141	13	23.970	23.948
52846*	40	21.752	14.986	52920	8	18.809	17.960	52994	8	5.211	20.960	53068	8	6.486	22.131	53142	12	24.024	23.708
52847	14	22.072	14.774	52921	8	21.358	17.057	52995	12	5.449	20.664	53069	34	7.523	22.250	53143	8	25.862	23.548
52848	8	22.260	14.938	52922	8	21.848	17.808	52996*	34	5.473	20.706	53070	34	9.752	22.834	53144	10	1.164	24.838
52849	22	24.667	14.466	52923*	47	22.151	17.699	52997	9	5.966	20.296	53071	26	10.696	22.099	53145	12	1.292	24.007
52850	8	0.366	15.694	52924	8	22.839	17.512	52998	9	6.006	20.752	53072	8	10.936	22.496	53146*	32	3.232	24.436
52851*	24	1.284	15.058	52925	8	23.512	17.864	52999	8	6.302	20.596	53073	22	12.444	22.700	53147	12	3.614	24.484
52852	11	1.414	15.246	52926	8	23.543	17.564	53000	8	6.722	20.494	53074	8	12.696	22.196	53148	10	4.266	24.416
52853	8	1.634	15.114	52927	9	24.986	17.464	53001	12	7.468	20.712	53075*	15	13.028	22.959	53149	8	5.206	24.645
52854	8	2.445	15.946	52928	9	1.225	18.262	53002*	60	7.564	20.352	53076	8	13.836	22.726	53150	18	6.145	24.972
52855	29	3.962	15.016	52929	8	1.757	18.554	53003	18	8.024	20.690	53077	8	14.777	22.629	53151	10	7.554	24.094
52856	8	4.182	15.396	52930	8	3.875	18.910	53004	9	8.731	20.500	53078	8	15.008	22.434	53152	8	8.140	24.325
52857	8	5.381	15.744	52931	12	4.063	18.785	53005	12	9.763	20.610	53079	8	15.845	22.832	53153	12	8.528	24.050
52858	8	6.951	15.920	52932	10	4.826	18.376	53006	9	11.693	20.432	53080	8	16.145	22.868	53154	8	8.866	24.230
52859	8	8.706	15.596	52933	8	5.601	18.666	53007	8	12.058	20.390	53081	9	16.812	22.285	53155	10	8.996	24.175
52860	12	10.000	15.590	52934	8	6.781	18.199	53008	10	12.332	20.349	53082	8	17.334	22.788	53156	13	9.501	24.393
52861	10	15.850	15.360	52935	10	6.984	18.414	53009	11	12.741	20.553	53083*	45	18.439	22.042	53157	12	9.585	24.054
52862	11	19.351	15.632	52936	8	8.864	18.322	53010	12	13.470	20.350	53084	9	19.672	22.272	53158*	40	10.170	24.299
52863	8	19.600	15.552	52937	22	9.704	18.842	53011	9	13.856	20.006	53085	8	20.100	22.333	53159	20	10.598	24.336
52864	8	20.388	15.306	52938	8	10.308	18.520	53012	8	13.953	20.408	53086	8	20.289	22.774	53160	8	10.824	24.735
52865	16	21.074	15.662	52939	10	11.196	18.334	53013	8	14.598	20.408	53087	10	20.426	22.202	53161	23	11.416	24.201
52866	16	21.231	15.540	52940	8	11.964	18.036	53014	8	15.284	20.896	53088	12	20.516	22.730	53162	31	12.031	24.358
52867	13	21.704	15.904	52941	8	13.040	18.430	53015	24	15.487	20.095	53089*	40	20.723	22.024	53163	9	12.382	24.048
52868	10	21.768	15.956	52942	9	13.565	18.862	53016	8	16.254	20.746	53090	9	20.798	22.552	53164	8	12.630	24.126
52869	22	21.785	15.956	52943	14	14.308	18.046	53017	11	17.486	20.215	53091	8	21.154	22.645	53165	13	12.974	24.753
52870	8	22.314	15.895	52944	8	14.791	18.211	53018*	40	18.620	20.410	53092	8	21.581	22.574	53166	10	13.049	24.886
52871	12	22.624	15.662	52945	10	14.919	18.315	53019	8	18.791	20.586	53093	11	23.330	22.794	53167	8	13.447	24.603
52872	9	23.074	15.366	52946	12	15.698	18.239	53020	8	18.941	20.349	53094	9	24.028	22.458	53168	30	13.502	24.475
52873	10	23.970	15.680	52947	28	18.308	18.956	53021	8	19.576	20.301	53095	10	24.082	22.658	53169	8	14.346	24.025
52874	12	24.441	15.372	52948	12	19.601	18.290	53022*	34	20.821	20.938	53096	8	24.136	22.966	53170	8	14.917	24.546
52875	8	24.894	15.236	52949	8	19.646	18.382	53023	10	21.417	20.605	53097	8	24.856	22.138	53171	22	15.662	24.933
52876	8	0.720	16.524	52950	8	20.638	18.776	53024	8	21.546	20.886	53098	8	0.361	23.696	53172	8	16.359	24.756
52877	23	0.752	16.566	52951	8	21.669	18.786	53025	11	21.962	20.226	53099	8	0.586	23.143	53173	9	16.496	24.719
52878	12	1.038	16.070	52952	8	21.774	18.382	53026											



53186	9	0.048	25.372	53254	20	7.708	0.181	53328	9	11.955	6.225	53402	13	16.684	11.955	53476	8	14.696	16.620
53187	8	1.221	25.436	53255*	23	13.841	0.956	53329	8	15.522	6.180	53403	9	20.618	11.866	53477	8	15.547	16.357
53188	9	1.526	25.988	53256	10	20.253	0.367	53330	8	15.818	6.269	53404	10	20.976	11.462	53478*	30	16.724	16.813
53189	12	1.633	25.950	53257	8	21.960	0.282	53331	10	16.124	6.680	53405	11	21.071	11.582	53479	9	18.228	16.340
53190	19	2.006	25.270	53258	8	0.223	1.542	53332	8	16.610	6.972	53406	8	25.028	11.246	53480	11	1.591	17.020
53191	18	2.816	25.772	53259	15	0.492	1.956	53333	10	17.673	6.665	53407	10	25.598	11.935	53481	9	2.564	17.736
53192	8	4.202	25.342	53260	13	0.576	1.217	53334*	30	18.506	6.784	53408	9	0.692	12.104	53482	8	3.107	17.126
53193	8	4.512	25.961	53261	13	3.736	1.974	53335	8	21.473	6.496	53409*	13	1.536	12.816	53483*	25	3.609	17.063
53194	20	4.934	25.948	53262	8	5.695	1.716	53336	8	21.526	6.944	53410*	18	3.100	12.124	53484	10	4.229	17.883
53195	10	5.130	25.225	53263	8	7.132	1.770	53337*	22	22.022	6.662	53411	9	3.468	12.354	53485	10	4.658	17.953
53196	8	5.464	25.520	53264	9	7.278	1.857	53338	8	22.354	6.679	53412*	25	4.464	12.604	53486	11	6.099	17.462
53197	8	5.837	25.725	53265	15	9.101	1.647	53339	11	1.978	7.814	53413	14	8.814	12.500	53487	12	8.103	17.650
53198	10	6.066	25.206	53266	8	9.186	1.398	53340	8	2.326	7.224	53414*	20	16.914	12.743	53488*	20	16.460	17.346
53199	10	6.583	25.310	53267	8	10.094	1.024	53341	8	8.456	7.915	53415	16	20.633	12.878	53489	8	16.552	17.612
53200	8	6.824	25.108	53268	15	12.634	1.104	53342*	20	11.666	7.710	53416	8	25.462	12.798	53490*	22	23.302	17.726
53201	23	7.466	25.429	53269	10	13.332	1.655	53343	9	11.984	7.424	53417	8	1.182	13.591	53491	9	0.892	18.704
53202	8	8.024	25.262	53270	18	16.028	1.912	53344	9	13.798	7.022	53418	11	3.982	13.370	53492	8	1.201	18.293
53203	9	8.603	25.672	53271	18	16.642	1.815	53345	8	14.028	7.458	53419	12	4.252	13.650	53493	8	1.747	18.776
53204	10	12.056	25.108	53272	24	18.231	1.124	53346	8	14.744	7.074	53420*	24	5.284	13.695	53494*	15	2.550	18.530
53205	11	12.193	25.298	53273	8	20.400	1.676	53347	12	17.052	7.674	53421	8	11.339	13.694	53495*	12	4.000	18.327
53206	8	12.734	25.122	53274	8	3.128	2.236	53348	10	17.306	7.317	53422*	28	20.590	13.283	53496*	20	4.484	18.761
53207	8	13.024	25.899	53275*	16	3.139	2.544	53349	18	18.320	7.006	53423	9	21.172	13.670	53497	10	4.658	18.576
53208	12	13.291	25.333	53276	8	3.150	2.055	53350	8	19.473	7.295	53424	9	22.344	13.481	53498	10	4.665	18.597
53209	8	13.557	25.880	53277	8	3.624	2.224	53351	8	20.114	7.199	53425	8	24.816	13.479	53499	8	4.934	18.751
53210	12	14.710	25.280	53278	20	5.910	2.486	53352	11	23.730	7.335	53426	9	0.596	14.176	53500	8	7.550	18.866
53211	8	15.172	25.758	53279	10	7.735	2.908	53353	20	1.716	8.818	53427	12	2.228	14.742	53501	8	7.737	18.876
53212	12	15.388	25.829	53280	10	19.458	2.713	53354	14	3.366	8.221	53428	8	2.715	14.186	53502	8	9.879	18.592
53213	26	15.416	25.068	53281*	25	19.684	2.144	53355	10	3.681	8.724	53429	9	2.863	14.047	53503	8	10.903	18.803
53214	8	15.732	25.661	53282*	41	23.625	2.892	53356	8	4.296	8.654	53430	8	4.676	14.762	53504	8	11.369	18.142
53215	11	16.558	25.594	53283	8	0.946	3.999	53357	8	5.314	8.178	53431	8	4.800	14.858	53505	11	17.634	18.354
53216	9	16.858	25.282	53284	8	1.286	3.628	53358*	28	5.361	8.696	53432*	16	6.146	14.960	53506	12	3.534	19.776
53217	8	17.818	25.482	53285	8	3.686	3.368	53359	8	5.380	8.434	53433	8	7.665	14.560	53507	12	4.245	19.470
53218	28	17.964	25.700	53286*	9	3.894	3.384	53360	12	5.435	8.634	53434	8	10.014	14.880	53508	8	6.987	19.767
53219	8	18.243	25.856	53287	8	6.800	3.374	53361	8	6.168	8.434	53435*	14	12.762	14.406	53509	10	7.272	19.087
53220	18	18.564	25.818	53288	10	8.674	3.234	53362	8	6.635	8.644	53436	10	13.246	14.270	53510	11	8.270	19.452
53221	10	18.855	25.056	53289	8	12.996	3.616	53363	8	10.048	8.531	53437	8	13.321	14.184	53511*	18	11.288	19.614
53222	11	19.143	25.562	53290	11	13.530	3.560	53364	8	11.593	8.765	53438	10	13.880	14.364	53512	8	11.302	19.376
53223	11	19.828	25.054	53291	13	15.046	3.806	53365	9	13.205	8.640	53439	8	17.516	14.832	53513	8	16.794	19.354
53224	9	20.908	25.450	53292	9	17.030	3.017	53366	11	14.096	8.835	53440	8	21.384	14.036	53514	8	21.168	19.296
53225	8	21.064	25.931	53293	8	17.124	3.716	53367	9	20.984	8.056	53441	20	21.455	14.927	53515	8	25.170	19.232
53226	8	21.284	25.176	53294	14	21.100	3.495	53368	12	22.302	8.883	53442	11	21.566	14.608	53516	11	1.270	20.828
53227	9	21.699	25.802	53295	10	3.654	4.036	53369	17	22.614	8.282	53443	14	25.623	14.356	53517	8	3.714	20.884
53228	32	21.973	25.931	53296	12	4.333	4.823	53370	9	23.075	8.252	53444	10	0.194	15.952	53518	10	3.724	20.664
53229	20	22.018	25.586	53297	12	5.536	4.291	53371	9	24.977	8.600	53445	9	0.640	15.652	53519	10	4.584	20.538
53230	25	22.388	25.070	53298	8	9.232	4.816	53372	8	2.734	9.585	53446	8	1.540	15.964	53520	16	4.726	20.677
53231	14	23.747	25.530	53299*	17	10.269	4.966	53373	8	4.727	9.526	53447	8	1.818	15.216	53521	11	5.344	20.730
53232	8	24.246	25.650	53300	13	10.560	4.847	53374	8	9.007	9.285	53448	10	2.004	15.650	53522	8	8.326	20.478
53233	8	24.561	25.731	53301	12	11.870	4.066	53375	9	12.148	9.357	53449	8	4.994	15.643	53523	11	8.370	20.696
<b>R.A. 18<sup>h</sup> 20<sup>m</sup></b> Plate 578; 1915 Aug. 4. <i>Provisional Constants.</i> A B C -01748 +00678 -0295 D E F -00652 -01776 +1617 Mag. = 14.3 - 1.09√d				53302*	16	12.788	4.066	53376	11	14.706	9.135	53450	9	5.860	15.354	53524	8	12.686	20.858
				53303	13	13.256	4.996	53377	14	15.054	9.563	53451*	15	6.458	15.801	53525	8	14.824	20.245
				53304	8	15.030	4.086	53378	10	19.300	9.198	53452	8	6.529	15.230	53526	10	16.733	20.594
				53305	12	15.958	4.671	53379	8	21.228	9.800	53453	15	6.599	15.371	53527	8	16.746	20.966
				53306	10	16.494	4.295	53380*	20	23.673	9.342	53454	17	14.750	15.241	53528	12	18.539	20.692
				53307	9	17.344	4.566	53381	8	0.107	10.662	53455	8	14.936	15.284	53529	8	18.798	20.980
				53308	13	19.212	4.436	53382	10	1.630	10.163	53456	9	15.948	15.526	53530	8	19.571	20.790
				53309	8	19.764	4.113	53383	13	1.656	10.356	53457*	28	16.016	15.850	53531	8	20.288	20.034
				53310	8	20.235	4.895	53384	8	2.696	10.199	53458	18	17.526	15.594	53532	14	0.442	21.125
				53311	40	25.124	4.045	53385	8	4.606	10.384	53459	8	17.838	15.464	53533	9	0.696	21.440
				53312	8	0.562	5.104	53386	8	5.096	10.916	53460	16	19.836	15.144	53534	12	0.962	21.954
				53313*	28	1.576	5.525	53387*	20	5.788	10.112	53461	12	20.956	15.872	53535	17	1.332	21.364
				53314	13	3.686	5.576	53388*	19	10.694	10.703	53462	12	21.159	15.748	53536	20	2.684	21.415
				53315	12	4.906	5.496	53389	11	12.925	10.684	53463	8	22.996	15.205	53537	11	3.926	21.962
				53316	8	5.297	5.368	53390*	16	15.056	10.865	53464	8	0.214	16.696	53538	10	4.030	21



53550	17	18.223	21.292	53653	14	2.400	0.805	53727	18	14.144	1.764	53801	42	7.404	3.161	53875	34	15.066	4.986
53551	8	20.422	21.922	53654	8	2.443	0.034	53728	8	15.136	1.677	53802	14	7.656	3.860	53876	12	15.426	4.552
53552	8	20.476	21.907	53655	18	2.692	0.442	53729	8	15.222	1.841	53803	8	8.164	3.323	53877	14	16.115	4.524
53553	8	22.671	21.900	53656	16	3.090	0.836	53730	8	16.255	1.666	53804	34	8.308	3.642	53878	8	16.538	4.822
53554	8	23.757	21.778	53657	16	3.170	0.714	53731	32	16.897	1.530	53805	8	8.518	3.675	53879	42	16.674	4.084
53555	11	24.565	21.586	53658	8	3.434	0.764	53732	37	17.162	1.089	53806	28	8.571	3.144	53880*	38	17.152	4.324
53556	8	1.644	22.736	53659	8	3.746	0.718	53733	56	18.225	1.026	53807	17	8.694	3.104	53881	12	17.558	4.735
53557	8	1.694	22.944	53660	8	3.782	0.102	53734	13	18.945	1.984	53808	18	8.818	3.896	53882	8	17.802	4.514
53558	8	3.777	22.298	53661	9	4.185	0.974	53735	8	18.978	1.884	53809	8	8.832	3.724	53883	8	18.644	4.524
53559	8	4.827	22.676	53662*	56	4.606	0.937	53736	12	20.274	1.778	53810	8	9.580	3.425	53884	10	19.423	4.557
53560	8	9.366	22.115	53663	8	4.666	0.481	53737*	64	21.402	1.176	53811	8	9.662	3.287	53885	8	19.586	4.563
53561	16	13.700	22.816	53664	42	4.942	0.294	53738	8	21.554	1.324	53812	8	9.720	3.425	53886	8	19.918	4.958
53562	9	14.415	22.360	53665	9	4.958	0.132	53739	8	23.066	1.958	53813	24	9.918	3.764	53887	22	20.312	4.786
53563	8	17.852	22.932	53666	43	5.589	0.013	53740	8	23.846	1.957	53814	12	10.301	3.049	53888	20	21.532	4.984
53564*	40	18.814	22.973	53667	25	5.865	0.498	53741	14	24.350	1.344	53815	12	11.366	3.971	53889	36	21.700	4.994
53565	13	19.136	22.717	53668	28	6.548	0.938	53742	8	25.066	1.350	53816	17	11.493	3.177	53890*	58	22.385	4.926
53566	8	20.799	22.594	53669	38	6.662	0.528	53743	16	0.052	2.765	53817	10	11.750	3.069	53891	8	22.948	4.446
53567	8	24.184	22.108	53670	8	6.748	0.838	53744	8	0.182	2.722	53818	28	12.357	3.514	53892	8	23.355	4.958
53568	8	24.436	22.352	53671	8	6.818	0.388	53745	34	0.556	2.779	53819	8	12.803	3.954	53893	16	24.356	4.245
53569	8	0.946	23.079	53672	32	6.892	0.603	53746	9	0.678	2.002	53820	26	13.315	3.356	53894	17	25.616	4.292
53570	8	1.646	23.985	53673	8	7.092	0.544	53747	8	0.965	2.859	53821	10	13.616	3.713	53895	11	0.505	5.064
53571	8	3.487	23.814	53674	9	7.281	0.460	53748*	68	1.161	2.861	53822	8	15.402	3.713	53896	8	1.614	5.608
53572	12	4.746	23.721	53675	9	7.320	0.860	53749	8	1.778	2.729	53823*	51	15.853	3.333	53897	36	2.060	5.312
53573	8	5.653	23.500	53676	18	7.436	0.835	53750	16	2.253	2.570	53824*	78	17.315	3.415	53898	8	2.452	5.899
53574	14	8.128	23.676	53677	18	7.616	0.146	53751	8	3.884	2.689	53825	10	17.502	3.525	53899	10	2.769	5.788
53575	9	10.084	23.412	53678	8	8.782	0.816	53752	8	4.194	2.545	53826	36	18.148	3.827	53900	8	2.879	5.226
53576	10	15.292	23.265	53679*	70	9.205	0.964	53753	17	4.434	2.762	53827	24	18.183	3.742	53901	26	2.912	5.415
53577	8	15.962	23.782	53680	8	9.468	0.477	53754	8	5.224	2.445	53828	8	18.394	3.782	53902	8	3.589	5.704
53578	9	21.616	23.816	53681	30	10.332	0.136	53755	14	6.274	2.802	53829	36	18.402	3.031	53903	8	4.184	5.924
53579	20	1.029	24.570	53682	8	10.444	0.482	53756	8	6.278	2.663	53830	10	19.076	3.263	53904	8	5.876	5.424
53580*	24	1.342	24.079	53683	8	10.597	0.045	53757	8	6.325	2.642	53831	8	20.744	3.049	53905	12	5.925	5.060
53581	10	1.597	24.230	53684	8	14.758	0.122	53758	14	6.496	2.909	53832	8	21.394	3.537	53906	9	6.053	5.316
53582	8	5.084	24.826	53685	13	17.632	0.718	53759	8	7.183	2.793	53833	26	21.514	3.532	53907	24	6.394	5.595
53583*	13	9.386	24.300	53686	10	18.373	0.318	53760	17	7.312	2.427	53834	32	22.976	3.568	53908	28	6.499	5.985
53584	10	17.694	24.484	53687	34	18.944	0.004	53761	8	7.333	2.988	53835	16	0.135	4.796	53909	12	7.392	5.572
53585	9	19.586	24.762	53688	8	20.196	0.320	53762	10	7.462	2.822	53836	8	0.363	4.546	53910	8	7.723	5.430
53586	12	19.790	24.221	53689	8	20.327	0.746	53763	8	7.878	2.920	53837	9	0.612	4.630	53911	39	7.937	5.402
53587	11	0.020	25.358	53690	12	21.592	0.120	53764*	56	8.796	2.965	53838	9	0.696	4.554	53912	8	8.713	5.571
53588	9	1.384	25.810	53691	36	22.948	0.128	53765	8	9.076	2.286	53839	8	0.805	4.984	53913	8	9.208	5.502
53589	11	3.979	25.651	53692	13	24.524	0.144	53766	14	9.568	2.078	53840	16	1.536	4.645	53914	9	9.356	5.032
53590	11	4.020	25.466	53693	8	25.069	0.358	53767	8	9.758	2.684	53841	8	2.043	4.970	53915	9	9.742	5.266
53591	8	4.193	25.337	53694	17	2.124	1.496	53768	10	9.771	2.305	53842	8	2.160	4.065	53916	8	10.054	5.518
53592	8	6.638	25.799	53695	8	2.143	1.036	53769	40	9.965	2.231	53843	8	2.434	4.995	53917	34	10.720	5.472
53593	11	6.925	25.560	53696	8	2.588	1.175	53770	34	11.494	2.584	53844	8	3.172	4.642	53918	9	11.016	5.357
53594	11	8.830	25.072	53697	8	2.701	1.664	53771	36	11.767	2.604	53845	8	3.712	4.202	53919	8	11.318	5.508
53595	8	9.376	25.813	53698	18	2.976	1.495	53772*	68	11.796	2.280	53846	34	3.946	4.064	53920	12	11.334	5.488
53596	10	9.456	25.568	53699	8	3.248	1.624	53773	14	11.842	2.654	53847	13	4.006	4.738	53921	8	11.389	5.317
53597	8	11.406	25.130	53700	8	4.113	1.613	53774	24	13.004	2.951	53848	14	5.158	4.861	53922	8	11.732	5.904
53598	8	12.430	25.504	53701	11	4.124	1.570	53775	17	13.880	2.792	53849	8	5.354	4.703	53923	8	11.927	5.350
53599	8	12.782	25.479	53702	8	4.238	1.650	53776	19	13.975	2.280	53850	9	5.400	4.743	53924	10	12.646	5.905
53600	8	23.984	25.148	53703	16	4.688	1.246	53777	8	17.369	2.596	53851	30	5.512	4.826	53925	12	13.946	5.634
				53704	28	5.616	1.046	53778	8	18.684	2.472	53852	8	5.706	4.768	53926	12	14.578	5.258
				53705	8	5.642	1.742	53779	8	18.972	2.024	53853	14	6.075	4.704	53927	11	14.985	5.750
				53706	8	5.666	1.315	53780	14	19.186	2.453	53854	9	6.263	4.296	53928	22	15.595	5.044
				53707	36	5.718	1.186	53781	14	20.323	2.398	53855	10	6.944	4.505	53929	8	15.857	5.744
				53708	9	5.926	1.346	53782	11	20.474	2.626	53856	16	7.798	4.125	53930	9	17.294	5.822
				53709	34	6.158	1.114	53783	26	21.036	2.646	53857	8	7.846	4.705	53931	8	18.897	5.623
				53710	40	6.214	1.314	53784	20	21.488	2.115	53858	19	7.878	4.282	53932	18	19.085	5.871
				53711	8	6.276	1.098	53785*	41	22.550	2.232	53859	19	8.235	4.823	53933	8	20.384	5.436
				53712*	76	6.574	1.483	53786	8	25.353	2.465	53860	8	8.328	4.238	53934	10	20.815	5.294
				53713	36	7.324	1.612	53787	8	2.599	3.533	53861	8	8.355	4.625	53935	28	20.838	5.646
				53714	23	7.804	1.536	53788	8	2.646	3.691	53862*	58	8.916	4.364	53936	36	21.730	5.214
				53715	10	7.934	1.975	53789*	80	2.662	3.990	53863	8	9.278	4.884	53937*	56	21.776	5.220
				53716	8	7.938	1.122	53790	8	2.994	3.040	53864	14	9.450	4.534	53938	38	22.244	5.026
				53717	11	8.294	1.844	53791	15	3.536	3.062	53865	8	9.813	4.696	53939	18	22.442	5.106
				53718	11	8.322	1.684	53792	9	4.318	3.030	53866	20	10.645	4.896	53940			



53949	8	1.945	6.119	54023	44	0.215	8.224	54097	8	24.568	9.718	54171*	56	12.395	11.334	54245	10	24.736	12.256
53950	9	2.055	6.015	54024	36	0.674	8.188	54098	10	25.503	9.931	54172	10	14.720	11.996	54246	8	25.036	12.772
53951	11	2.492	6.135	54025	8	1.496	8.402	54099	8	25.552	9.708	54173	9	15.465	11.674	54247	10	25.535	12.929
53952	10	2.508	6.665	54026	8	1.542	8.786	54100	44	25.596	9.196	54174*	36	17.216	11.394	54248	16	25.736	12.094
53953	9	2.576	6.103	54027	9	1.743	8.676	54101	11	0.004	10.590	54175	8	17.389	11.983	54249	8	25.942	12.498
53954	8	3.065	6.746	54028	8	1.854	8.308	54102	8	0.005	10.648	54176	9	19.676	11.180	54250	8	0.744	13.327
53955	12	3.218	6.226	54029	9	1.890	8.972	54103	50	0.166	10.784	54177	8	19.680	11.862	54251	12	0.815	13.202
53956	9	4.028	6.604	54030	32	2.564	8.512	54104	30	0.264	10.732	54178	18	19.980	11.382	54252	9	0.985	13.524
53957	8	4.294	6.686	54031	16	3.386	8.905	54105	20	0.278	10.782	54179	8	20.014	11.351	54253	16	1.178	13.749
53958	8	4.543	6.347	54032	8	3.516	8.836	54106	8	1.545	10.336	54180	22	20.652	11.614	54254	20	2.454	13.356
53959	8	4.598	6.066	54033	8	3.849	8.274	54107	8	1.736	10.434	54181	16	21.956	11.766	54255	8	2.505	13.223
53960	22	6.464	6.764	54034	9	4.628	8.252	54108	8	1.752	10.946	54182	18	23.538	11.450	54256	10	2.858	13.660
53961	8	7.664	6.606	54035*	76	5.055	8.465	54109*	54	1.876	10.122	54183	8	24.312	11.961	54257	8	4.762	13.908
53962	34	7.714	6.865	54036	16	5.714	8.045	54110	8	3.703	10.574	54184	14	24.924	11.114	54258	8	7.258	13.406
53963	12	8.644	6.732	54037	12	6.561	8.616	54111	8	3.858	10.252	54185	9	0.464	12.458	54259	14	7.890	13.992
53964	14	8.964	6.743	54038	32	7.088	8.078	54112	14	3.910	10.308	54186	10	0.498	12.653	54260	11	8.054	13.076
53965	26	10.396	6.296	54039	24	7.950	8.293	54113	19	4.168	10.872	54187	8	0.842	12.289	54261	8	8.500	13.102
53966	13	10.974	6.563	54040	12	9.776	8.055	54114	10	5.742	10.762	54188	8	1.286	12.913	54262	8	8.590	13.112
53967	9	11.134	6.676	54041	8	10.716	8.620	54115	8	5.884	10.658	54189	24	3.088	12.676	54263	14	9.006	13.676
53968	8	11.218	6.324	54042*	78	10.811	8.315	54116	8	6.135	10.015	54190	16	3.432	12.409	54264	8	9.464	13.604
53969	8	11.752	6.570	54043	16	11.066	8.365	54117	28	6.238	10.951	54191	12	3.526	12.254	54265	8	9.666	13.216
53970	50	11.884	6.950	54044	32	12.194	8.494	54118	8	6.303	10.276	54192	22	3.644	12.642	54266	11	10.254	13.462
53971	8	12.484	6.124	54045	10	12.442	8.450	54119	36	6.536	10.438	54193	8	4.047	12.372	54267	8	10.629	13.632
53972	18	12.685	6.938	54046	8	13.808	8.455	54120	8	8.825	10.952	54194	8	5.573	12.484	54268	9	10.697	13.605
53973	12	13.438	6.981	54047	11	14.498	8.063	54121	44	9.248	10.882	54195	8	6.315	12.624	54269	9	10.758	13.084
53974	10	13.744	6.264	54048	56	15.184	8.315	54122	19	10.168	10.216	54196	8	6.489	12.152	54270	32	11.785	13.163
53975	8	13.910	6.492	54049	36	15.257	8.665	54123	40	10.923	10.938	54197*	52	7.194	12.974	54271	38	11.954	13.694
53976	8	14.388	6.100	54050	8	15.328	8.491	54124	8	12.951	10.014	54198	9	7.728	12.912	54272	14	13.457	13.392
53977	8	14.808	6.774	54051	10	15.491	8.120	54125	12	13.384	10.804	54199	8	8.406	12.774	54273	8	14.256	13.445
53978	8	14.849	6.083	54052	14	15.502	8.074	54126	8	13.392	10.322	54200	8	8.874	12.995	54274	8	15.055	13.955
53979	8	15.413	6.476	54053	36	16.895	8.647	54127*	42	15.206	10.418	54201	14	8.916	12.420	54275	10	16.592	13.300
53980	8	16.330	6.385	54054	8	17.573	8.052	54128	18	15.268	10.508	54202	10	9.110	12.564	54276*	96	16.664	13.314
53981	9	16.741	6.325	54055	11	17.702	8.200	54129	14	16.088	10.384	54203	8	9.166	12.675	54277	36	16.725	13.016
53982	8	16.796	6.547	54056	8	21.794	8.826	54130	8	16.562	10.890	54204	10	9.204	12.966	54278	8	18.287	13.696
53983	14	17.348	6.093	54057	32	24.338	8.507	54131	8	18.325	10.172	54205	8	9.242	12.498	54279	8	19.838	13.715
53984	8	18.100	6.286	54058	10	25.664	8.698	54132	18	19.424	10.848	54206	10	9.444	12.373	54280	11	19.967	13.752
53985	8	18.952	6.664	54059	10	0.506	9.688	54133	12	19.962	10.487	54207	19	9.457	12.231	54281	10	20.026	13.754
53986	44	19.150	6.714	54060	12	0.764	9.985	54134	14	20.665	10.104	54208	9	9.446	12.174	54282	24	21.043	13.442
53987	10	19.308	6.672	54061*	62	1.274	9.264	54135	40	20.842	10.439	54209	8	9.500	12.036	54283	42	21.436	13.184
53988	28	20.725	6.601	54062*	46	3.816	9.184	54136	20	21.002	10.214	54210	8	9.535	12.635	54284	14	21.672	13.344
53989	8	21.744	6.975	54063	16	3.910	9.509	54137	8	21.046	10.365	54211	30	9.560	12.762	54285	36	23.024	13.886
53990	12	23.066	6.053	54064	32	3.967	9.060	54138*	58	21.524	10.146	54212	24	9.582	12.735	54286*	56	24.606	13.044
53991	16	23.758	6.400	54065	8	4.193	9.318	54139	8	22.610	10.223	54213	13	9.586	12.804	54287	14	25.025	13.356
53992	36	1.315	7.274	54066	18	4.208	9.284	54140	17	23.576	10.064	54214	12	9.675	12.415	54288	8	0.460	14.674
53993	8	3.078	7.534	54067	8	4.468	9.518	54141	10	24.294	10.234	54215	14	9.698	12.695	54289	14	0.576	14.993
53994	8	3.387	7.390	54068	12	4.556	9.314	54142	10	0.856	11.316	54216	11	9.886	12.095	54290	8	0.580	14.353
53995	8	5.284	7.745	54069	8	5.953	9.824	54143	16	1.234	11.152	54217	8	9.905	12.324	54291	12	2.302	14.508
53996	8	5.486	7.376	54070	8	6.008	9.294	54144	8	1.372	11.202	54218	8	9.998	12.778	54292	10	2.918	14.565
53997	15	5.528	7.826	54071	8	6.304	9.951	54145	8	1.464	11.174	54219	14	10.066	12.585	54293	36	3.258	14.215
53998	8	5.634	7.574	54072	21	6.734	9.694	54146	28	2.646	11.140	54220	12	10.078	12.615	54294	36	4.167	14.790
53999	24	7.090	7.372	54073	16	7.678	9.201	54147	36	3.214	11.816	54221	38	10.104	12.056	54295	9	4.172	14.123
54000	9	7.384	7.155	54074	18	7.992	9.538	54148	10	3.996	11.690	54222	8	10.106	12.944	54296	44	5.928	14.013
54001	8	7.545	7.487	54075	32	7.998	9.648	54149	36	4.210	11.011	54223	9	10.199	12.842	54297	24	6.150	14.404
54002	8	8.746	7.835	54076	8	8.022	9.575	54150	8	4.995	11.984	54224	9	10.388	12.015	54298	30	7.764	14.312
54003	40	9.648	7.798	54077	16	9.338	9.102	54151	8	5.328	11.583	54225	17	12.133	12.354	54299	20	8.736	14.842
54004	26	10.538	7.945	54078	9	9.602	9.138	54152	20	5.374	11.774	54226	11	12.326	12.836	54300	9	9.728	14.134
54005	17	10.714	7.868	54079	8	9.835	9.565	54153	28	6.682	11.454	54227	10	12.862	12.344	54301	8	10.824	14.955
54006	9	12.142	7.493	54080	32	10.458	9.368	54154	10	6.994	11.632	54228*	76	13.736	12.494	54302	19	10.902	14.283
54007	16	12.598	7.676	54081	8	10.663	9.313	54155	36	8.184	11.172	54229*	74	14.608	12.763	54303	8	12.534	14.440
54008	10	13.265	7.272	54082	8	11.174	9.319	54156	11	8.333	11.775	54230	8	14.912	12.650	54304	8	12.594	14.894
54009	8	13.824	7.075	54083	11	11.192	9.464	54157	37	8.354	11.534	54231	10	15.826	12.436	54305	34	13.312	14.054
54010*	63	13.892	7.623	54084	12	12.098	9.915	54158	8	9.048	11.378	54232	8	16.461	12.380	54306	9	14.108	14.378
54011	8	14.156	7.542	54085	12	12.764	9.768	54159	10	9.066	11.846	54233	12	17.316	12.055	54307	8	14.336	14.376
54012	8	15.005	7.115	54086	8	14.451													



54319	12	23°000	14°602	54393	8	22°726	16°384	54467	24	25°156	18°072	54541	12	2°284	21°056	54615	36	16°467	23°182
54320	30	23°152	14°426	54394	37	23°098	16°286	54468	24	2°861	19°057	54542	12	4°295	21°056	54616	10	17°180	23°790
54321	12	23°304	14°093	54395	34	23°581	16°269	54469	40	4°314	19°045	54543	12	4°652	21°035	54617	19	17°252	23°665
54322	14	23°474	14°604	54396	16	24°100	16°443	54470	16	4°770	19°619	54544	17	5°966	21°225	54618	12	17°662	23°440
54323	8	23°556	14°198	54397	22	24°134	16°845	54471	10	6°125	19°470	54545	8	6°289	21°113	54619	8	17°704	23°814
54324	16	23°656	14°127	54398*	84	24°275	16°242	54472	10	6°698	19°694	54546	10	7°065	21°766	54620	15	18°878	23°388
54325	17	23°854	14°872	54399	9	24°404	16°655	54473	17	6°894	19°084	54547	8	8°682	21°574	54621	12	19°510	23°498
54326	32	25°145	14°645	54400	8	24°736	16°155	54474	12	7°772	19°594	54548	8	9°654	21°066	54622	20	20°169	23°555
54327	14	25°378	14°933	54401	8	24°946	16°816	54475	12	7°922	19°856	54549	38	10°664	21°386	54623	12	21°785	23°558
54328	24	25°535	14°067	54402	9	25°246	16°706	54476	9	8°146	19°932	54550	18	12°058	21°444	54624	16	22°844	23°634
54329	8	0°332	15°633	54403	12	25°355	16°644	54477	10	8°960	19°272	54551	12	13°902	21°088	54625	24	23°314	23°076
54330	10	0°446	15°604	54404*	48	0°995	17°586	54478	8	8°994	19°518	54552	8	13°925	21°598	54626	12	24°144	23°344
54331	8	0°632	15°016	54405	8	1°698	17°150	54479	12	12°682	19°945	54553	34	13°936	21°653	54627	8	24°956	23°268
54332	32	0°663	15°090	54406	11	1°708	17°490	54480*	65	13°575	19°768	54554*	36	14°048	21°600	54628	12	0°474	24°750
54333	8	0°914	15°207	54407	17	1°834	17°503	54481	12	13°628	19°704	54555	38	14°090	21°256	54629	8	1°093	24°246
54334	8	1°110	15°386	54408	15	2°030	17°747	54482	16	13°716	19°611	54556	11	16°853	21°044	54630	26	1°743	24°940
54335	8	1°416	15°539	54409	8	2°094	17°062	54483	25	13°942	19°008	54557	8	18°616	21°665	54631	12	2°256	24°262
54336	12	1°842	15°584	54410	11	4°920	17°718	54484	16	16°559	19°673	54558	46	19°444	21°522	54632	20	2°973	24°630
54337	16	3°611	15°065	54411	8	5°604	17°300	54485	11	16°775	19°267	54559	8	19°886	21°376	54633	12	2°994	24°748
54338	34	4°320	15°852	54412	11	7°456	17°245	54486	10	17°023	19°825	54560	11	20°005	21°844	54634	8	5°428	24°015
54339	10	5°078	15°070	54413	10	8°762	17°950	54487	44	17°362	19°568	54561	9	20°554	21°127	54635	9	7°426	24°944
54340	8	5°534	15°520	54414	8	10°936	17°994	54488	8	17°482	19°126	54562	12	21°906	21°383	54636	20	8°835	24°392
54341	8	5°759	15°895	54415	8	10°974	17°884	54489	11	17°622	19°455	54563	19	21°964	21°788	54637	10	9°718	24°782
54342	8	6°294	15°174	54416	8	11°134	17°003	54490	12	18°514	19°752	54564	8	22°005	21°734	54638	8	11°818	24°866
54343	16	6°656	15°065	54417	8	12°258	17°606	54491	9	20°104	19°438	54565	8	22°136	21°558	54639	40	13°065	24°314
54344	8	7°931	15°538	54418	19	13°536	17°573	54492	8	20°332	19°274	54566	32	22°293	21°864	54640	8	13°942	24°635
54345	30	9°494	15°872	54419	8	13°934	17°184	54493	22	20°815	19°384	54567	39	22°494	21°398	54641	8	15°144	24°658
54346	30	10°166	15°871	54420	12	14°045	17°728	54494	8	21°177	19°972	54568	36	22°766	21°174	54642	8	15°642	24°575
54347	32	12°900	15°174	54421	16	14°082	17°252	54495	36	22°106	19°916	54569	16	22°954	21°840	54643	8	17°234	24°325
54348	14	13°265	15°638	54422	22	16°038	17°165	54496	48	22°336	19°510	54570	8	23°133	21°445	54644	20	17°356	24°448
54349	10	14°142	15°223	54423	10	16°058	17°942	54497	8	22°555	19°809	54571	19	23°748	21°970	54645	8	17°751	24°742
54350	8	15°852	15°650	54424	22	16°748	17°533	54498	8	23°065	19°534	54572	16	23°801	21°862	54646	8	18°095	24°208
54351	45	16°328	15°766	54425	10	17°019	17°901	54499	36	24°125	19°983	54573	14	24°276	21°522	54647	38	19°486	24°374
54352	8	18°166	15°436	54426	17	17°034	17°003	54500	14	24°168	19°636	54574	9	24°408	21°684	54648	20	19°740	24°232
54353*	76	21°030	15°928	54427	8	18°201	17°507	54501	8	24°575	19°642	54575	24	2°166	22°162	54649	12	20°106	24°562
54354	46	21°517	15°838	54428	8	18°345	17°170	54502	34	24°724	19°248	54576	8	3°326	22°054	54650*	56	22°082	24°355
54355	32	21°688	15°443	54429	9	18°586	17°205	54503	8	25°366	19°816	54577	36	4°542	22°562	54651	9	22°395	24°676
54356	8	22°115	15°805	54430	10	18°996	17°392	54504	34	25°798	19°082	54578*	56	5°965	22°585	54652	8	23°060	24°773
54357	8	22°772	15°242	54431	12	19°522	17°318	54505	9	0°175	20°245	54579	36	6°452	22°684	54653	8	23°916	24°940
54358*	40	23°766	15°380	54432	9	19°537	17°255	54506	8	0°298	20°336	54580	16	6°694	22°454	54654	8	25°173	24°436
54359*	40	24°015	15°410	54433	8	20°336	17°806	54507	8	0°367	20°834	54581	12	6°975	22°895	54655	20	0°336	25°036
54360	42	24°434	15°364	54434	12	21°392	17°446	54508	8	0°986	20°336	54582	16	9°344	22°846	54656	34	0°856	25°554
54361	10	24°975	15°136	54435	10	21°934	17°514	54509	8	1°566	20°595	54583	18	11°255	22°084	54657	8	1°656	25°198
54362	8	25°134	15°046	54436	14	21°966	17°452	54510	9	2°026	20°392	54584	20	11°919	22°306	54658	32	4°223	25°418
54363	16	1°034	16°515	54437	11	22°590	17°418	54511	10	3°105	20°697	54585	8	12°128	22°197	54659	44	6°647	25°214
54364	11	1°126	16°324	54438	8	22°816	17°473	54512	8	4°759	20°474	54586	16	13°046	22°720	54660	8	6°776	25°374
54365	8	2°284	16°354	54439	16	23°218	17°078	54513	18	7°165	20°397	54587	14	14°340	22°786	54661	36	8°044	25°516
54366	8	4°048	16°608	54440	12	24°124	17°512	54514	12	8°996	20°652	54588	10	14°598	22°633	54662	8	8°928	25°323
54367	40	4°344	16°106	54441	8	24°168	17°163	54515	11	9°137	20°606	54589	15	15°125	22°662	54663	20	10°148	25°424
54368*	46	4°734	16°486	54442	34	24°766	17°680	54516	8	10°392	20°858	54590	10	16°082	22°635	54664	8	11°666	25°452
54369	11	5°148	16°884	54443	8	25°832	17°272	54517	34	12°688	20°300	54591	30	16°499	22°900	54665	22	11°744	25°078
54370	8	5°729	16°599	54444	14	2°612	18°464	54518	9	14°226	20°536	54592	50	17°278	22°632	54666	17	14°453	25°298
54371	24	6°318	16°144	54445	8	4°055	18°990	54519	8	14°915	20°364	54593	42	18°304	22°122	54667	8	15°396	25°096
54372	11	6°491	16°800	54446	22	4°084	18°102	54520	8	15°204	20°262	54594	14	18°812	22°894	54668	14	16°704	25°344
54373	52	7°836	16°218	54447	8	6°802	18°912	54521	8	16°162	20°798	54595	8	20°286	22°666	54669	16	17°100	25°874
54374	8	8°757	16°198	54448	36	7°246	18°258	54522	36	17°024	20°052	54596	9	20°394	22°874	54670	8	18°104	25°451
54375	8	9°720	16°803	54449	16	7°964	18°090	54523	8	17°438	20°188	54597	36	20°804	22°875	54671	8	19°194	25°285
54376	19	10°056	16°335	54450	16	8°644	18°464	54524	36	18°118	20°332	54598	8	21°302	22°070	54672	13	21°754	25°765
54377	8	10°474	16°405	54451	8	9°614	18°870	54525	24	18°456	20°212	54599	34	22°226	22°894	54673	12	23°004	25°206
54378	19	10°925	16°538	54452	8	10°870	18°535	54526	9	18°664	20°480	54600	16	0°072	23°025	54674	14	24°156	25°636
54379	38	11°194	16°816	54453	10	11°234	18°664	54527	8	19°066	20°929	54601	8	2°154	23°874	54675	36	24°260	25°754
54380	12	11°294	16°062	54454	11	11°350	18°412	54528	38	19°258	20°290	54602	9	2°318	23°876	54676	8	25°424	25°064
54381	20	14°916	16°540	54455	11														



**R.A. 18<sup>h</sup> 36<sup>m</sup>**

Plate 709; 1916 Apr. 30.

*Provisional Constants.*

A	B	C
-02588	+00392	+1039

D	E	F
-00396	-02592	-1244

 $Mag. = 16.7 - 10.9\sqrt{d}$ 

No.	d	x	y
54700	17	0.370	0.166
54701	13	8.730	0.258
54702	13	10.262	0.960
54703	14	11.870	0.185
54704*	60	14.259	0.222
54705*	51	14.801	0.806
54706	8	16.724	0.744
54707	9	17.259	0.431
54708	17	5.696	1.894
54709	8	10.896	1.242
54710*	40	12.130	1.732
54711*	48	14.874	1.122
54712	14	19.706	1.030
54713	17	22.374	1.792
54714	45	8.810	2.676
54715	11	9.346	2.633
54716	8	9.574	2.266
54717	27	11.041	2.760
54718	8	12.240	2.116
54719	8	18.850	2.955
54720	8	20.072	2.862
54721	13	20.877	2.045
54722*	55	21.428	2.923
54723	9	23.540	2.333
54724	33	25.495	2.666
54725	13	0.420	3.602
54726	22	3.716	3.471
54727	18	4.117	3.949
54728	15	10.314	3.522
54729	22	10.562	3.673
54730	20	11.684	3.151
54731	40	13.181	3.634
54732	8	16.976	3.337
54733	13	23.934	3.979
54734	10	23.944	3.919
54735	14	25.390	3.486
54736	12	3.068	4.307
54737	13	3.928	4.639
54738	14	9.432	4.924
54739	17	10.752	4.812
54740	12	13.694	4.614
54741	16	14.942	4.268
54742	8	14.944	4.152
54743	11	19.439	4.430
54744	10	20.048	4.457
54745	13	22.040	4.440
54746	26	22.400	4.555
54747	9	23.631	4.886
54748	14	23.679	4.770
54749	8	0.810	5.580
54750	22	0.821	5.550
54751	22	1.537	5.957
54752*	64	3.940	5.490
54753	8	5.334	5.665
54754	14	5.605	5.530
54755	8	5.918	5.835

54756	14	15.738	5.492	54830*	45	13.090	11.350	54904	8	7.858	17.992
54757	16	25.288	5.540	54831	8	15.322	11.087	54905	8	11.513	17.980
54758	10	0.533	6.085	54832*	68	17.450	11.117	54906	11	20.119	17.496
54759	12	1.224	6.430	54833	17	19.600	11.360	54907	20	22.775	17.926
54760	20	8.468	6.298	54834*	40	21.013	11.288	54908	15	2.711	18.088
54761	8	9.173	6.254	54835*	34	22.611	11.100	54909	8	4.371	18.008
54762	13	9.408	6.810	54836	8	24.238	11.633	54910	16	4.726	18.700
54763	22	11.135	6.065	54837	12	24.588	11.192	54911	30	5.432	18.830
54764*	58	13.211	6.439	54838	8	1.133	12.428	54912	8	9.296	18.830
54765	8	17.531	6.256	54839	10	3.248	12.110	54913	14	17.290	18.413
54766	37	20.147	6.462	54840	12	7.263	12.380	54914*	35	17.548	18.510
54767	8	21.184	6.262	54841	27	9.370	12.842	54915	11	21.258	18.040
54768	10	21.304	6.678	54842	26	15.368	12.635	54916	14	22.196	18.656
54769	10	22.146	6.500	54843	20	16.128	12.609	54917	8	23.121	18.884
54770	18	24.164	6.585	54844	22	18.196	12.702	54918	8	23.986	18.351
54771	18	3.448	7.258	54845*	87	18.606	12.952	54919	8	24.664	18.588
54772	9	4.071	7.092	54846	8	18.859	12.950	54920	10	24.832	18.700
54773	10	4.762	7.118	54847	18	19.019	12.660	54921	23	24.974	18.597
54774	24	4.813	7.232	54848	17	19.798	12.279	54922	10	25.460	18.132
54775	8	5.546	7.266	54849	8	21.737	12.506	54923*	44	0.955	19.024
54776	20	6.614	7.870	54850	17	22.052	12.422	54924	8	1.734	19.660
54777	9	7.504	7.888	54851	8	22.290	12.688	54925	15	2.286	19.269
54778	2	7.617	7.328	54852	8	23.219	12.995	54926	17	3.360	19.092
54779	14	8.829	7.066	54853	15	23.434	12.995	54927	13	4.048	19.831
54780	22	8.844	7.126	54854	20	0.546	13.920	54928	12	4.845	19.662
54781	9	9.695	7.792	54855*	45	2.122	13.068	54929	18	4.848	19.232
54782	13	10.270	7.953	54856	8	2.542	13.376	54930	8	5.326	19.285
54783	8	10.370	7.875	54857	17	3.536	13.531	54931	9	9.532	19.494
54784	26	10.916	7.376	54858	17	6.324	13.600	54932	8	11.030	19.698
54785	22	11.208	7.290	54859	10	8.697	13.940	54933	8	11.335	19.098
54786	20	13.511	7.112	54860	13	9.339	13.512	54934	30	19.694	19.875
54787	20	14.924	7.520	54861	8	9.520	13.038	54935	11	21.300	19.620
54788*	32	16.578	7.250	54862*	62	13.870	13.736	54936	20	1.694	20.008
54789	10	19.732	7.616	54863	9	14.022	13.658	54937	8	1.856	20.720
54790	19	20.482	7.910	54864	17	17.416	13.230	54938	8	1.866	20.232
54791	8	22.919	7.302	54865	16	19.952	13.240	54939	8	7.898	20.138
54792*	40	23.230	7.881	54866	8	21.632	13.666	54940	8	8.718	20.742
54793	8	23.368	7.934	54867	17	23.180	13.314	54941	8	9.340	20.399
54794	11	25.362	7.450	54868	8	0.530	14.638	54942*	57	18.132	20.016
54795	10	1.821	8.534	54869	22	0.678	14.462	54943	20	22.655	20.030
54796*	42	10.913	8.228	54870	17	2.676	14.662	54944*	80	23.443	20.064
54797	13	13.513	8.748	54871	15	4.550	14.296	54945	26	0.071	21.438
54798	15	22.850	8.046	54872	15	5.186	14.371	54946	15	0.344	21.209
54799	37	23.600	8.922	54873	17	6.574	14.608	54947	12	0.538	21.876
54800	8	0.320	9.372	54874	8	9.779	14.630	54948	9	1.332	21.995
54801	30	3.080	9.214	54875	8	10.067	14.490	54949	9	1.858	21.542
54802	9	4.669	9.677	54876*	40	11.530	14.462	54950	22	6.301	21.518
54803	31	10.722	9.842	54877	8	12.315	14.315	54951	19	15.926	21.723
54804	8	11.580	9.314	54878	11	25.077	14.900	54952	11	18.260	21.734
54805	17	13.714	9.060	54879*	18	1.301	15.410	54953	8	18.333	21.861
54806	8	14.316	9.006	54880*	40	1.548	15.439	54954	19	22.256	21.408
54807	24	15.945	9.256	54881	34	1.968	15.388	54955	16	24.344	21.105
54808	12	16.276	9.165	54882	8	2.507	15.154	54956*	42	7.975	22.590
54809	31	17.316	9.786	54883	15	10.530	15.457	54957	20	12.174	22.918
54810	14	18.974	9.476	54884	8	14.100	15.805	54958	9	12.436	22.492
54811	8	19.711	9.988	54885	22	17.240	15.066	54959*	28	15.864	22.354
54812	10	22.481	9.463	54886	15	18.320	15.174	54960	8	22.855	22.425
54813*	34	22.989	9.360	54887	8	18.461	15.074	54961	25	24.161	22.612
54814	8	23.544	9.698	54888	11	19.954	15.208	54962	19	25.292	22.952
54815	13	24.115	9.748	54889	19	23.304	15.760	54963	8	25.874	22.702
54816	29	24.798	9.572	54890	19	0.640	16.320	54964	17	25.910	22.792
54817	8	7.601	10.908	54891	14	1.122	16.299	54965	8	0.441	23.670
54818*	29	7.853	10.524	54892	9	1.679	16.870	54966	8	0.908	23.108
54819	20	16.642	10.622	54893*	90	1.807	16.266	54967	8	1.738	23.370
54820	17	20.908	10.442	54894	20	4.590	16.708	54968	18	6.164	23.374
54821	10	23.923	10.969	54895	11	9.156	16.284	54969	8	6.940	23.576
54822	8	24.042	10.520	54896	16	10.468	16.678	54970	8	7.860	23.727
54823	36	25.340	10.689	54897	8	13.688	16.582	54971	21	9.836	23.120
54824	8	25.764	10.546	54898	22	15.970	16.850	54972	12	9.940	23.182
54825	8	1.042	11.478	54899	22	23.026	16.500	54973	9	13.246	23.648
54826	11	4.676	11.636	54900	8	0.766	17.113	54974	8	13.348	23.654
54827	12	5.010	11.240	54901	15	2.319	17.701	54975	11	14.430	23.447
54828	8	5.191	11.920	54902	22	4.854	17.108	54976*	37	14.510	23.583
54829	22	5.655	11.376	54903	8	5.392	17.009	54977	22	15.600	23.499

**R.A. 18<sup>h</sup> 44<sup>m</sup>**

Plate 710; 1916 Apr. 30.

*Provisional Constants.*

A	B	C
-02567	+00733	+1701

D	E	F
-00759	-02576	-2770

 $Mag. = 16.9 - 1.09\sqrt{d}$ 

No.	d	x	y
55050	8	0.864	0.382
55051	8	4.162	0.798
55052	8	8.316	0.628
55053	11	12.476	0.783
55054	8	14.146	0.957
55055	8	14.242	0.243
55056	20	15.578	0.988
55057	8	16.878	0.330
55058	19	16.986	0.272
55059	15	18.884	0.338
55060	13	18.956	0.856
55061	12	19.086	0.286
55062	10	23.778	0.490
55063	8	24.952	0.904
55064	8	4.278	1.476
55065	13	6.412	1.605
55066*	62	6.554	1.704
55067	16	6.739	1.392
55068	8	9.445	1.471



55069	8	11:674	1:540	55143	8	8:798	4:442	55217	39	1:286	8:858	55291	13	2:307	11:116	55365	10	8:745	14:909
55070	8	11:829	1:306	55144	8	9:097	4:136	55218	9	5:766	8:628	55292*	44	4:442	11:414	55366	10	9:826	14:026
55071	8	13:477	1:180	55145*	47	10:360	4:779	55219	8	6:714	8:046	55293	29	6:349	11:320	55367	8	9:872	14:308
55072	18	13:792	1:237	55146	8	14:772	4:975	55220*	33	7:044	8:303	55294	11	6:982	11:872	55368*	58	9:984	14:040
55073	10	14:456	1:791	55147	8	18:815	4:244	55221	8	7:284	8:069	55295*	70	7:886	11:006	55369	8	11:719	14:994
55074	10	16:134	1:096	55148	8	19:247	4:786	55222	12	7:829	8:428	55296	15	10:124	11:478	55370	28	11:780	14:794
55075	8	16:444	1:642	55149	8	19:986	4:854	55223	8	8:604	8:900	55297	8	10:776	11:182	55371	28	12:143	14:158
55076	8	16:681	1:621	55150	24	20:766	4:548	55224	8	9:712	8:540	55298	22	13:294	11:394	55372	19	12:488	14:157
55077	8	17:785	1:170	55151	17	21:988	4:320	55225	30	9:824	8:850	55299	14	14:684	11:119	55373	34	12:742	14:854
55078	9	19:291	1:288	55152	11	23:746	4:392	55226	8	10:888	8:875	55300	14	16:270	11:276	55374	10	14:122	14:615
55079	8	19:973	1:854	55153	12	23:857	4:403	55227	10	13:792	8:415	55301	15	17:884	11:784	55375	14	14:416	14:092
55080	21	20:628	1:736	55154	11	0:888	5:918	55228	26	16:246	8:431	55302	18	18:414	11:215	55376	10	17:622	14:042
55081	9	20:925	1:536	55155	8	1:440	5:391	55229	21	22:651	8:690	55303	8	19:528	11:578	55377	8	17:706	14:788
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55116	8	11:802	3:606	55190	38	21:455	6:700	55264	8	0:050	10:078	55338	10	7:584	13:983	55412	9	17:170	16:225
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55124*	52	17:102	3:815	55198*	39	1:903	7:824	55272	8	4:204	10:475	55346	8	14:524	13:837	55420	17	4:749	17:377
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55132	8	22:558	3:000	55206	26	12:70													



55439	9	1.800	18.282	55513	8	23.425	20.274	55587	10	4.984	23.532	55661	16	7.991	25.555	55717	8	23.754	1.847
55440	10	2.481	18.508	55514	8	23.964	20.386	55588	20	5.862	23.647	55662	8	8.387	25.790	55718	8	25.264	1.824
55441	13	2.650	18.618	55515	10	24.584	20.628	55589	8	8.682	23.704	55663	44	8.935	25.957	55719	13	25.588	1.294
55442	31	2.788	18.516	55516	34	24.687	20.288	55590	8	9.594	23.696	55664	8	9.853	25.755	55720	8	0.515	2.810
55443	16	3.272	18.043	55517	14	24.932	20.928	55591	8	11.354	23.350	55665	8	10.818	25.406	55721	8	4.277	2.724
55444	33	4.410	18.092	55518	25	0.110	21.362	55592	34	11.368	23.024	55666	9	11.260	25.998	55722	13	4.335	2.036
55445	8	4.713	18.621	55519	19	2.197	21.032	55593	8	11.588	23.259	55667	8	12.118	25.436	55723	11	4.454	2.831
55446	8	6.424	18.566	55520	8	2.535	21.343	55594	25	11.866	23.317	55668	8	12.176	25.584	55724	8	4.754	2.524
55447	8	12.398	18.640	55521	8	2.608	21.573	55595	21	11.877	23.363	55669	8	12.424	25.034	55725	10	5.476	2.399
55448	10	12.700	18.666	55522	8	2.780	21.604	55596	9	12.292	23.030	55670	8	14.214	25.534	55726	8	10.454	2.282
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55451	18	15.474	18.833	55525	8	9.197	21.486	55599	14	17.412	23.334	55673	8	16.242	25.840	55729	8	16.045	2.164
55452	17	15.626	18.316	55526	8	10.282	21.096	55600	25	17.444	23.250	55674	8	16.503	25.492	55730	8	21.354	2.750
55453	13	17.054	18.652	55527	28	10.408	21.176	55601	9	18.539	23.948	55675	38	16.677	25.078	55731	23	22.285	2.766
55454*	57	17.087	18.334	55528	9	10.466	21.614	55602	11	21.014	23.188	55676	45	16.753	25.434	55732	20	25.392	2.404
55455	31	17.136	18.565	55529	10	10.476	21.432	55603	15	21.312	23.626	55677	9	18.283	25.210	55733	8	25.634	2.954
55456	8	17.898	18.636	55530	8	10.746	21.328	55604	8	21.835	23.329	55678	8	18.591	25.094	55734	8	2.101	3.977
55457	12	19.098	18.084	55531	8	10.835	21.084	55605	11	22.864	23.804	55679	18	18.681	25.664	55735	8	3.626	3.343
55458	27	19.322	18.248	55532	26	11.868	21.463	55606	16	23.540	23.026	55680	13	19.244	25.924	55736	9	6.598	3.532
55459	13	19.986	18.278	55533	8	12.986	21.288	55607	8	24.426	23.416	55681	8	19.589	25.350	55737	10	9.021	3.985
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55461	8	21.156	18.976	55535	8	15.684	21.784	55609	8	24.817	23.876	55683	14	20.666	25.870	55739	9	10.042	3.514
55462	46	21.216	18.608	55536	11	16.284	21.685	55610	37	25.250	23.788	55684	8	20.965	25.672	55740	8	11.792	3.568
55463	8	21.390	18.674	55537*	60	16.902	21.899	55611	45	25.620	23.764	55685	33	21.247	25.167	55741	10	11.796	3.446
55464	12	21.842	18.994	55538	8	18.604	21.552	55612	11	0.944	24.901	55686	12	21.983	25.554	55742	9	12.424	3.756
55465	8	22.896	18.531	55539	11	19.754	21.142	55613	11	1.946	24.456	55687	25	22.136	25.619	55743	12	12.864	3.174
55466	9	23.510	18.888	55540	8	19.756	21.221	55614	13	2.898	24.220	55688	20	22.948	25.462	55744	14	15.394	3.614
55467	18	23.750	18.054	55541	8	20.154	21.154	55615	8	3.354	24.229	55689	11	23.362	25.830	55745	8	17.028	3.192
55468	19	24.430	18.091	55542	8	21.164	21.646	55616	13	3.787	24.212	55690	8	24.614	25.608	55746*	38	17.893	3.785
55469	25	25.033	18.888	55543	13	21.177	21.532	55617	27	4.118	24.134	55691	8	25.330	25.057	55747	8	18.216	3.444
55470	8	25.649	18.080	55544	18	21.410	21.407	55618	9	4.198	24.375	55692	13	25.849	25.127	55748	8	20.866	3.526
55471	22	25.900	18.934	55545	8	24.329	21.011	55619	9	5.764	24.354					55749	8	21.806	5.856
55472	23	0.494	19.980	55546	8	24.476	21.264	55620	10	6.270	24.712					55750	8	23.878	3.716
55473	14	4.604	19.175	55547	12	25.520	21.678	55621	8	6.551	24.494					55751	10	24.874	3.965
55474	30	8.482	19.248	55548	19	25.534	21.574	55622	24	7.512	24.105					55752	17	24.974	3.310
55475	8	10.252	19.864	55549	25	25.618	21.416	55623	11	7.582	24.086					55753	9	0.865	4.893
55476	8	10.678	19.634	55550	8	0.270	22.988	55624	12	7.968	24.260					55754	10	0.976	4.896
55477	8	12.112	19.904	55551	9	0.725	22.372	55625	15	7.978	24.396					55755*	40	1.054	4.358
55478	8	13.916	19.376	55552	31	2.032	22.539	55626	8	9.198	24.532					55756	8	2.495	4.310
55479	14	15.994	19.014	55553	25	3.166	22.864	55627	8	9.506	24.259					55757	8	3.737	4.529
55480	32	16.496	19.645	55554	23	3.784	22.696	55628	8	12.495	24.798					55758	10	4.424	4.793
55481	11	17.950	19.172	55555	11	3.798	22.382	55629	8	12.714	24.742					55759	8	4.872	4.364
55482	12	18.168	19.566	55556	38	5.286	22.905	55630*	60	13.696	24.609					55760	9	5.147	4.475
55483	8	18.225	19.816	55557	8	5.373	22.091	55631	25	14.200	24.781					55761	8	5.386	4.386
55484	8	22.076	19.576	55558	21	7.040	22.768	55632	13	14.762	24.192					55762	17	6.406	4.914
55485	12	22.344	19.340	55559	14	8.984	22.337	55633	20	14.900	24.358					55763	8	8.332	4.806
55486	14	22.968	19.486	55560	8	11.244	22.409	55634	9	15.490	24.450					55764	8	10.458	4.432
55487	18	23.702	19.042	55561	16	11.406	22.703	55635	8	15.641	24.340					55765	10	12.250	4.550
55488	22	24.390	19.424	55562	24	12.046	22.368	55636	26	15.914	24.890					55766	10	14.388	4.986
55489	31	24.655	19.181	55563	8	12.226	22.718	55637	15	18.360	24.591					55767	10	14.571	4.248
55490	8	24.908	19.390	55564	10	12.866	22.006	55638	28	18.612	24.424					55768	9	14.957	4.664
55491	8	1.223	20.439	55565	8	15.412	22.772	55639	11	19.056	24.932					55769	11	16.827	4.477
55492*	85	1.274	20.002	55566	41	15.712	22.178	55640	10	19.716	24.436					55770	8	18.176	4.214
55493	8	2.282	20.011	55567	34	16.278	22.785	55641	8	19.966	24.364					55771*	44	23.077	4.154
55494	11	3.834	20.088	55568*	65	16.314	22.872	55642	22	20.686	24.024					55772	11	4.048	5.877
55495	11	3.978	20.050	55569	12	16.724	22.732	55643	23	22.574	24.174					55773	20	5.416	5.990
55496	8	6.852	20.375	55570	8	16.826	22.546	55644	8	24.640	24.555					55774	13	10.105	5.540
55497	10	6.920	20.644	55571	8	17.160	22.107	55645	12	24.817	24.110					55775	20	10.272	5.896
55498	8	8.834	20.358	55572	8	17.694	22.574	55646	38	25.026	24.831					55776	17	11.940	5.562
55499	10	9.386	20.714	55573	13	18.084	22.406	55647	8	25.248	24.802					55777	8	13.512	5.646
55500	8	10.872	20.171	55574	8	18.214	22.726	55648	15	0.376	25.212					55778	10	16.688	5.194
55501	8	11.266	20.068	55575	18	18.251	22.265	55649	8	0.649	25.013					55779	9	17.644	5.854
55502	12	12.160	20.716	55576	17	18.720	22.518	55650	13	0.858	25.322					55780*	24	19.091	5.062
55503	8	12.184	20.453	55577	15	21.817	22.425	55651	16	1.382	25.935					55781	8	20.113	5.836
55504	8	12.634	20.466	55578	8	21.907	22.670	55652	8	1.472	25.273					55782	8	21.474	5.656
55505	10	13.463	20.392	55579	8	22.305	22.904	55653	8	1.558	2								



55791	8	9.503	6.504	55865*	16	8.874	11.008	55939	8	7.321	16.954	56013	12	0.524	21.389	56087	10	14.855	25.670
55792	8	9.635	6.866	55866	8	11.766	11.724	55940*	30	7.436	16.836	56014	8	1.606	21.642	56088*	31	15.484	25.370
55793	8	9.784	6.843	55867	13	20.344	11.538	55941	14	8.026	16.796	56015	8	1.858	21.254	56089	8	17.907	25.450
55794	13	16.496	6.578	55868	20	3.153	12.696	55942	9	8.600	16.342	56016	8	2.214	21.548	56090*	29	19.301	25.315
55795	8	17.939	6.094	55869	8	3.423	12.101	55943	10	8.826	16.062	56017	9	4.113	21.686	56091	10	19.789	25.802
55796*	26	2.617	7.375	55870	10	5.795	12.751	55944*	34	20.833	16.872	56018	12	4.172	21.846	56092	8	21.118	25.960
55797	10	3.856	7.443	55871	8	5.872	12.483	55945	11	23.808	16.246	56019	8	5.096	21.786				
55798*	40	4.147	7.126	55872	8	6.376	12.822	55946	12	25.672	16.424	56020	12	5.206	21.864				
55799*	23	6.167	7.584	55873	11	10.973	12.040	55947	8	3.706	17.085	56021*	31	5.654	21.702				
55800	12	6.175	7.616	55874	8	12.082	12.176	55948*	41	9.906	17.174	56022	11	5.726	21.719				
55801	8	6.702	7.878	55875	12	16.344	12.476	55949	10	11.150	17.558	56023	9	6.836	21.024				
55802	8	7.304	7.556	55876	8	22.786	12.496	55950	12	13.939	17.056	56024*	60	7.238	21.105				
55803	8	17.717	7.888	55877*	39	24.774	12.653	55951	15	14.554	17.678	56025	9	7.357	21.276				
55804	25	19.814	7.446	55878*	32	0.759	13.476	55952	8	17.868	17.373	56026	9	12.548	21.475				
55805	8	20.364	7.832	55879	8	4.054	13.236	55953	9	19.644	17.518	56027	8	16.758	21.699				
55806	8	20.884	7.024	55880	8	4.157	13.973	55954	11	23.535	17.806	56028	8	16.829	21.226				
55807	8	25.475	7.433	55881	16	6.764	13.114	55955	13	24.532	17.574	56029	8	17.057	21.636				
55808	8	1.281	8.881	55882	8	6.846	13.415	55956	14	24.721	17.316	56030	22	19.406	21.307				
55809	10	1.734	8.642	55883	8	7.216	14.967	55957	12	1.676	18.694	56031	8	23.116	21.772				
55810	8	1.834	8.548	55884	9	7.661	13.038	55958	8	2.253	18.126	56032	8	25.445	21.054				
55811	13	1.856	8.474	55885	8	9.594	13.779	55959	8	2.904	18.240	56033	8	25.636	21.166				
55812	8	2.284	8.902	55886	15	16.811	13.984	55960	8	3.264	18.666	56034	8	2.814	22.298				
55813	8	2.366	8.666	55887	8	18.696	13.076	55961	8	3.494	18.634	56035	12	2.824	22.194				
55814*	34	4.480	8.661	55888	8	20.752	13.354	55962	11	4.244	18.424	56036	11	2.908	22.034				
55815	8	5.456	8.786	55889	11	22.511	13.396	55963	8	5.075	18.264	56037	9	4.172	22.076				
55816	10	6.531	8.126	55890	9	23.436	13.795	55964	20	5.796	18.643	56038	8	4.375	22.812				
55817	8	10.936	8.984	55891	8	23.732	13.056	55965	20	7.508	18.963	56039	16	5.224	22.273				
55818*	20	12.846	8.892	55892	10	24.415	13.535	55966	8	9.054	18.268	56040	8	5.526	22.775				
55819	8	12.856	8.046	55893	8	0.453	14.205	55967	8	11.825	18.816	56041	8	7.706	22.134				
55820	8	16.506	8.246	55894	8	0.946	14.186	55968	10	20.243	18.761	56042	19	13.625	22.932				
55821	8	21.254	8.202	55895	8	1.784	14.280	55969	8	20.858	18.627	56043	8	17.771	22.166				
55822	10	22.084	8.197	55896	8	6.384	14.906	55970	11	23.154	18.626	56044	8	18.675	22.894				
55823	8	0.790	9.592	55897	12	7.097	14.978	55971*	35	24.000	18.485	56045	16	19.898	22.626				
55824	14	3.585	9.286	55898	11	16.835	14.357	55972	8	24.074	18.613	56046	8	21.514	22.967				
55825	10	5.115	9.024	55899	9	17.138	14.684	55973	9	24.704	18.142	56047	13	0.656	23.487				
55826	21	6.532	9.512	55900	8	17.702	14.982	55974	8	25.506	18.558	56048	10	0.826	23.679				
55827	9	6.634	9.236	55901	8	18.076	14.918	55975	13	25.674	18.828	56049	23	1.516	23.344				
55828	10	7.260	9.854	55902*	24	20.146	14.254	55976	11	25.872	18.707	56050	11	3.920	23.746				
55829*	17	7.763	9.206	55903	21	20.815	14.069	55977	10	0.955	19.662	56051	12	4.676	23.083				
55830	10	8.100	9.446	55904	10	24.582	14.046	55978	14	1.916	19.790	56052	8	4.766	23.320				
55831	8	10.324	9.583	55905	10	25.046	14.837	55979	12	2.296	19.492	56053	8	5.646	23.466				
55832	10	12.187	9.034	55906	8	0.106	15.566	55980	12	3.174	19.527	56054*	35	6.616	23.054				
55833	9	13.354	9.696	55907	11	0.775	15.036	55981	8	3.406	19.266	56055	9	7.015	23.155				
55834	8	21.910	9.182	55908	8	2.715	15.335	55982	8	3.592	19.204	56056	9	9.228	23.218				
55835	8	22.284	9.776	55909	8	2.816	15.181	55983	11	3.936	19.666	56057	8	10.648	23.964				
55836	9	23.596	9.704	55910	21	3.854	15.979	55984	10	3.954	19.257	56058	10	12.400	23.933				
55837	10	0.518	10.283	55911	8	5.296	15.694	55985	8	5.723	19.532	56059	8	13.497	23.686				
55838	15	1.846	10.961	55912	13	6.120	15.156	55986	12	7.388	19.947	56060	9	21.146	23.936				
55839	12	1.886	10.362	55913	10	8.106	15.312	55987*	12	8.633	19.997	56061	8	23.824	23.045				
55840	8	1.904	10.144	55914	8	8.848	15.150	55988	10	9.436	19.083	56062	12	24.346	23.744				
55841	10	3.225	10.591	55915	10	8.935	15.652	55989*	46	9.642	19.502	56063	10	24.644	23.166				
55842	9	5.679	10.466	55916	8	9.345	15.350	55990	9	10.182	19.732	56064	9	25.837	23.686				
55843	8	6.042	10.765	55917	10	9.638	15.570	55991	8	14.424	19.872	56065	9	0.156	24.474				
55844	9	6.384	10.346	55918	8	14.821	15.702	55992*	20	14.804	19.938	56066	8	1.864	24.054				
55845	8	6.534	10.798	55919	9	15.206	15.927	55993	8	22.114	19.802	56067	8	2.126	24.764				
55846	13	8.217	10.264	55920*	18	16.476	15.302	55994	8	23.204	19.804	56068	18	2.558	24.432				
55847	10	8.319	10.623	55921	9	16.840	15.688	55995	8	23.955	19.296	56069	27	2.934	24.404				
55848	13	8.396	10.076	55922	8	19.604	15.913	55996	8	0.686	20.906	56070	8	3.528	24.248				
55849*	20	14.898	10.006	55923	10	21.100	15.454	55997	13	1.650	20.036	56071	8	3.569	24.994				
55850	8	15.056	10.425	55924	11	21.236	15.642	55998	18	1.956	20.905	56072	8	6.206	24.184				
55851	13	16.784	10.006	55925	9	22.426	15.120	55999*	19	4.373	20.778	56073	8	6.494	24.109				
55852	12	17.434	10.816	55926	18	22.962	15.173	56000	12	4.540	20.094	56074	14	12.097	24.454				
55853	8	20.536	10.466	55927	8	23.404	15.244	56001	13	5.026	20.416	56075*	40	17.274	24.682				
55854	20	21.399	10.711	55928*	32	24.406	15.260	56002	8	9.602	20.607	56076	8	17.321	24.010				
55855	8	22.244	10.242	55929	8	24.448	15.538	56003	8	10.656	20.516	56077	8	19.590	24.170				
55856	18	22.795	10.454	55930	9	25.334	15.182	56004	15	15.589	20.552	56078	10	19.600	24.108				
55857	8	23.465	10.400	55931	8	0.264	16.845	56005	14	16.584	20.773	56079	21	2.344	25.478				
55858	14	0.546	11.076	55932	8	0.689	16.884	56006	8	19.776	20.264	56080	8	3.175	25.770				
55859	8	0.805	11.698	55933	25	2.424	16.104	56007*	36	19.992	20.026	56081	20	3.477	25.520				
55860	8	3.074	11.328	55934	12	3.165	16.270	56008	8	21.555	20.302	56082	8	3.844	25.180				
55861	10	5.188	11.345	55935	20														



56143	8	6.892	1.900	56217	8	4.090	3.795	56291	9	22.848	4.335	56365	8	2.005	7.244	56439	9	23.474	8.624
56144	20	7.387	1.648	56218	8	4.934	3.270	56292	8	22.864	4.456	56366	8	2.686	7.072	56440	8	24.542	8.230
56145	14	8.042	1.228	56219	22	5.250	3.756	56293	22	23.450	4.532	56367	8	2.782	7.634	56441	8	24.886	8.579
56146	8	9.501	1.639	56220	8	7.199	3.797	56294	8	23.542	4.224	56368	12	3.255	7.442	56442	9	25.360	8.914
56147	8	10.094	1.108	56221	8	7.546	3.049	56295	8	23.574	4.743	56369	8	3.916	7.648	56443	11	0.103	9.790
56148	8	10.800	1.284	56222	8	7.821	3.667	56296	19	24.060	4.064	56370	18	5.260	7.832	56444	12	0.872	9.746
56149	8	12.647	1.158	56223	8	9.707	3.365	56297	10	24.665	4.794	56371	8	7.520	7.430	56445	11	1.400	9.702
56150	9	13.810	1.860	56224	8	10.486	3.569	56298	8	24.710	4.334	56372	13	8.152	7.344	56446	8	3.047	9.761
56151	8	13.820	1.363	56225	8	11.322	3.827	56299	13	25.501	4.754	56373	10	8.371	7.240	56447	70	3.870	9.610
56152	22	14.312	1.264	56226	17	11.381	3.962	56300	8	1.350	5.044	56374	8	8.593	7.680	56448	8	6.669	9.560
56153	49	14.453	1.130	56227	12	11.714	3.818	56301	33	1.850	5.352	56375	13	8.691	7.561	56449	10	6.742	9.413
56154	8	15.082	1.330	56228	8	11.818	3.492	56302	14	2.782	5.622	56376	8	8.804	7.373	56450	8	8.296	9.612
56155	24	16.227	1.116	56229	8	12.222	3.262	56303	26	2.876	5.585	56377	8	9.030	7.389	56451	17	8.873	9.030
56156	8	16.323	1.230	56230	20	12.910	3.500	56304	16	2.900	5.919	56378	9	9.272	7.130	56452	8	9.741	9.318
56157	12	16.598	1.034	56231	8	13.528	3.255	56305	16	5.294	5.042	56379	40	9.792	7.095	56453	8	10.170	9.412
56158	8	16.718	1.296	56232	9	14.060	3.566	56306	9	6.048	5.130	56380	8	9.833	7.871	56454	14	10.514	9.063
56159*	68	17.084	1.746	56233	19	14.329	3.829	56307	10	6.118	5.754	56381	23	10.439	7.160	56455	8	10.759	9.270
56160	8	17.298	1.584	56234	10	14.618	3.960	56308	18	6.526	5.770	56382	8	10.348	7.432	56456	8	11.475	9.228
56161	8	17.650	1.324	56235	29	15.605	3.335	56309	10	7.064	5.429	56383	8	12.026	7.500	56457	8	12.053	9.100
56162	10	17.674	1.560	56236	9	15.886	3.380	56310	14	7.588	5.210	56384	8	12.076	7.970	56458	10	12.417	9.561
56163	8	17.682	1.312	56237	11	16.242	3.772	56311	8	9.194	5.668	56385	8	12.534	7.824	56459*	60	12.529	9.230
56164	8	19.168	1.758	56238	8	16.298	3.864	56312	8	9.599	5.672	56386	14	13.190	7.206	56460	9	12.677	9.361
56165	17	19.196	1.714	56239	9	16.518	3.029	56313	8	9.630	5.300	56387	10	14.038	7.188	56461	19	13.042	9.271
56166	10	19.498	1.028	56240	21	16.840	3.329	56314	8	9.666	5.012	56388	10	14.478	7.565	56462	8	13.626	9.194
56167	8	19.560	1.160	56241	19	17.123	3.268	56315	8	9.920	5.341	56389	8	15.087	7.087	56463	21	14.676	9.032
56168	11	19.984	1.080	56242	8	17.319	3.124	56316	10	10.708	5.672	56390	16	15.415	7.370	56464	8	15.016	9.637
56169*	65	20.589	1.328	56243	13	18.246	3.323	56317	12	11.852	5.555	56391	8	15.602	7.198	56465	8	15.466	9.778
56170	10	21.212	1.078	56244	28	19.281	3.313	56318	8	12.794	5.770	56392	13	16.282	7.128	56466	19	15.592	9.369
56171	8	22.819	1.496	56245	24	19.584	3.512	56319	10	13.888	5.670	56393	13	16.895	7.830	56467	9	16.097	9.854
56172	19	23.368	1.306	56246	11	19.650	3.296	56320	8	14.136	5.474	56394	8	16.954	7.090	56468	10	16.953	9.200
56173	10	23.401	1.782	56247	8	19.826	3.288	56321	8	14.167	5.924	56395	8	17.148	7.551	56469	8	16.984	9.440
56174*	46	23.798	1.586	56248	8	20.800	3.789	56322*	135	16.008	5.370	56396	8	17.456	7.460	56470	13	18.340	9.934
56175	8	24.755	1.858	56249	27	21.727	3.898	56323	9	17.429	5.490	56397	8	17.961	7.572	56471	12	18.695	9.544
56176	8	25.072	1.684	56250	11	22.024	3.619	56324	8	17.787	5.342	56398	8	18.706	7.825	56472	8	19.117	9.784
56177	8	25.843	1.643	56251	15	23.056	3.559	56325	37	18.732	5.631	56399	18	18.901	7.922	56473	14	19.138	9.430
56178	29	0.065	2.831	56252	8	23.888	3.437	56326	42	19.056	5.750	56400	8	19.360	7.482	56474	17	19.310	9.624
56179	9	2.292	2.809	56253	8	24.208	3.620	56327	8	19.149	5.219	56401	10	20.743	7.500	56475*	52	19.620	9.874
56180	32	3.145	2.453	56254	10	24.390	3.685	56328	8	19.330	5.885	56402	8	21.100	7.010	56476	8	20.192	9.603
56181	16	3.390	2.996	56255	28	25.685	3.928	56329	8	20.042	5.917	56403	14	22.028	7.283	56477	19	21.548	9.290
56182	12	4.018	2.161	56256*	54	0.856	4.202	56330	8	20.988	5.314	56404	14	22.458	7.598	56478	25	21.900	9.346
56183	8	4.226	2.672	56257	10	2.530	4.027	56331	13	21.098	5.426	56405	8	24.850	7.588	56479	8	22.574	9.474
56184	8	4.461	2.571	56258	14	2.638	4.004	56332	8	21.406	5.050	56406	8	0.421	8.712	56480	27	23.095	9.720
56185*	54	4.933	2.468	56259	8	3.139	4.632	56333*	48	21.843	5.310	56407	8	0.436	8.164	56481	11	23.587	9.635
56186	8	6.186	2.630	56260	8	4.350	4.830	56334	9	23.442	5.082	56408	8	1.628	8.346	56482	17	24.022	9.873
56187	8	6.275	2.069	56261	20	4.526	4.532	56335	11	23.520	5.700	56409	8	5.758	8.716	56483	8	24.066	9.100
56188	8	6.643	2.108	56262	14	4.894	4.786	56336	8	24.218	5.264	56410	13	6.566	8.948	56484	12	24.076	9.765
56189	10	7.387	2.496	56263	9	6.206	4.830	56337	10	24.874	5.880	56411	8	8.700	8.663	56485	9	24.178	9.026
56190*	54	7.500	2.679	56264	19	6.274	4.403	56338	14	25.885	5.332	56412	9	10.409	8.738	56486	45	25.297	9.690
56191	13	8.934	2.433	56265	28	6.764	4.010	56339	8	25.966	5.968	56413	8	10.680	8.715	56487	13	25.547	9.820
56192	8	11.136	2.051	56266	8	7.301	4.406	56340	8	0.416	6.389	56414	8	10.724	8.524	56488	10	0.065	10.250
56193	10	11.166	2.061	56267	8	7.787	4.609	56341	8	3.366	6.032	56415	8	11.584	8.696	56489	8	0.418	10.944
56194	8	11.362	2.054	56268	17	8.354	4.480	56342	8	4.711	6.864	56416	8	11.800	8.680	56490	27	0.611	10.452
56195	10	12.005	2.909	56269	8	9.060	4.160	56343	13	4.733	6.282	56417	8	11.918	8.087	56491	8	2.622	10.664
56196	22	14.368	2.890	56270	14	9.420	4.270	56344	10	5.048	6.545	56418	8	14.208	8.300	56492	8	3.707	10.952
56197	8	14.610	2.886	56271	11	9.764	4.928	56345	16	5.854	6.588	56419	8	14.351	8.917	56493	8	4.085	10.260
56198	13	14.630	2.207	56272	9	11.575	4.115	56346	14	5.940	6.580	56420	9	14.936	8.104	56494	8	4.677	10.877
56199	16	15.028	2.864	56273	14	12.360	4.430	56347	27	9.479	6.890	56421	30	15.824	8.800	56495	12	5.078	10.672
56200	8	15.200	2.453	56274	11	12.439	4.672	56348	8	9.489	6.193	56422	11	18.224	8.972	56496	11	5.503	10.702
56201	28	15.420	2.264	56275	8	13.414	4.579	56349	11	10.174	6.094	56423	8	18.276	8.194	56497	12	8.395	10.936
56202	8	16.024	2.128	56276	10	13.502	4.140	56350	8	10.625	6.230	56424	10	18.410	8.050	56498	25	8.465	10.722
56203	10	16.340	2.841	56277	8	13.575	4.712	56351	48	11.372	6.262	56425	8	19.084	8.242	56499	24	8.601	10.970
56204	8	16.388	2.619	56278	9	15.089	4.613	56352	8	12.316	6.990	56426	10	19.089	8.052	56500	8	9.736	10.714
56205	8	17.286	2.959	56279	8	15.208	4.530	56353	11	13.728	6.528	56427	8	19.584	8.884	56501	17	10.126	10.377
56206	12	17.842	2.600	56280	10	16.042	4.148	56354	26	13.905	6.175	56428	9	20.024	8.080	56502	18	10.863	10.851
56207																			



56513	8	19.488	10.066	56587	8	15.100	12.722	56661	8	9.475	14.208	56735	8	8.764	16.786	56809	8	21.292	17.012
56514	22	19.650	10.658	56588	9	15.245	12.661	56662	10	9.570	14.146	56736	8	8.846	16.920	56810	23	21.374	17.562
56515	8	19.706	10.306	56589	8	16.400	12.847	56663	11	11.274	14.563	56737	8	9.460	16.198	56811	12	21.478	17.816
56516	17	19.808	10.446	56590	8	17.342	12.970	56664	8	11.830	14.700	56738*	43	12.170	16.348	56812	25	21.734	17.164
56517	22	19.966	10.462	56591	10	20.378	12.561	56665	15	13.128	14.796	56739	10	12.450	16.840	56813	10	22.653	17.302
56518	15	20.700	10.690	56592	8	20.953	12.475	56666	10	13.820	14.318	56740	8	13.265	16.441	56814	10	24.070	17.198
56519	8	22.816	10.530	56593	8	21.268	12.928	56667	10	14.211	14.994	56741	8	14.240	16.916	56815	13	24.752	17.074
56520	18	23.254	10.681	56594	8	22.087	12.460	56668	8	14.740	14.661	56742	10	14.470	16.120	56816	10	25.180	17.144
56521	8	23.346	10.020	56595	8	22.162	12.343	56669	22	14.812	14.502	56743	26	14.511	16.732	56817	25	1.012	18.560
56522	8	24.161	10.998	56596	10	22.872	12.804	56670	8	14.930	14.500	56744	8	14.730	16.045	56818*	68	1.850	18.412
56523*	56	24.435	10.318	56597	8	23.258	12.420	56671	10	15.078	14.242	56745	15	14.790	16.408	56819	10	1.924	18.539
56524	26	24.615	10.149	56598	22	23.784	12.653	56672	27	16.125	14.920	56746	10	15.154	16.816	56820	8	2.355	18.279
56525	8	25.406	10.878	56599	8	24.348	12.229	56673	18	17.464	14.068	56747	8	15.994	16.006	56821	8	2.512	18.332
56526	8	25.655	10.322	56600	8	0.182	13.538	56674	40	17.772	14.452	56748	28	16.250	16.176	56822	26	2.549	18.067
56527	8	0.149	11.144	56601	22	0.348	13.378	56675	10	17.993	14.670	56749	8	16.434	16.380	56823	8	2.786	18.918
56528	8	0.832	11.165	56602	8	0.372	13.768	56676	9	18.510	14.277	56750	14	16.614	16.692	56824	8	2.812	18.522
56529	8	2.546	11.230	56603	8	1.268	13.760	56677	10	19.022	14.492	56751*	50	17.169	16.118	56825	16	3.348	18.480
56530	10	3.518	11.116	56604	12	1.554	13.031	56678	9	19.874	14.953	56752	14	17.580	16.928	56826	33	3.516	18.744
56531	9	3.694	11.034	56605	22	2.238	13.500	56679	19	20.950	14.906	56753	29	18.420	16.100	56827	28	3.708	18.623
56532	8	4.871	11.880	56606	10	3.125	13.350	56680	8	21.714	14.006	56754	10	18.464	16.615	56828	10	4.277	18.050
56533	8	6.536	11.878	56607	8	3.176	13.890	56681	8	22.580	14.321	56755	17	18.588	16.889	56829	11	4.586	18.220
56534	8	7.726	11.520	56608	8	3.351	13.622	56682	8	22.913	14.824	56756	27	18.722	16.684	56830	8	4.936	18.204
56535	9	9.402	11.830	56609	11	3.966	13.320	56683	26	24.653	14.671	56757	8	18.785	16.672	56831	8	5.906	18.806
56536	10	9.787	11.394	56610	24	4.657	13.130	56684	10	25.072	14.526	56758	8	19.866	16.243	56832	8	5.994	18.846
56537	16	10.072	11.240	56611	9	4.857	13.902	56685	8	25.417	14.064	56759	10	20.800	16.104	56833	8	6.010	18.051
56538	15	10.346	11.612	56612	8	5.349	13.900	56686	19	0.274	15.084	56760	15	21.024	16.228	56834	8	8.044	18.728
56539	9	11.090	11.360	56613	12	6.714	13.774	56687	8	0.562	15.286	56761	17	21.147	16.748	56835	17	9.500	18.724
56540*	30	11.330	11.929	56614	10	8.105	13.178	56688	32	0.803	15.133	56762	13	21.632	16.592	56836*	73	10.054	18.232
56541	12	11.472	11.793	56615*	48	8.106	13.070	56689	11	1.242	15.200	56763	10	22.589	16.272	56837	8	10.344	18.556
56542	12	11.573	11.706	56616	9	8.817	13.027	56690	8	1.555	15.368	56764	8	22.888	16.200	56838	12	10.506	18.244
56543	11	14.091	11.572	56617	11	9.660	13.200	56691*	58	2.234	15.212	56765	11	22.945	16.420	56839	8	10.868	18.248
56544	9	14.134	11.668	56618	24	11.849	13.610	56692	17	2.282	15.488	56766	9	23.354	16.068	56840	21	11.394	18.728
56545	12	14.350	11.411	56619	8	14.578	13.010	56693	20	3.157	15.128	56767	8	24.000	16.727	56841	8	12.124	18.621
56546*	40	14.650	11.592	56620	30	14.630	13.350	56694	30	4.612	15.860	56768	10	24.826	16.544	56842	44	15.383	18.038
56547	20	15.394	11.235	56621	8	14.970	13.149	56695	10	4.828	15.250	56769	8	25.756	16.058	56843	13	15.836	18.488
56548	23	15.439	11.780	56622	18	15.529	13.840	56696	11	6.099	15.896	56770	22	1.384	17.742	56844	20	16.253	18.478
56549	8	17.617	11.833	56623	11	15.656	13.371	56697	26	6.126	15.430	56771	25	2.371	17.505	56845	8	17.443	18.770
56550	13	18.244	11.107	56624	21	15.746	13.832	56698	8	6.480	15.123	56772	26	2.560	17.248	56846	10	17.812	18.882
56551	8	18.355	11.870	56625	8	15.996	13.448	56699	14	8.016	15.452	56773	12	4.311	17.669	56847	8	17.901	18.538
56552	8	18.901	11.746	56626	8	16.100	13.941	56700	8	8.524	15.530	56774	29	5.229	17.720	56848	10	18.122	18.352
56553	8	19.462	11.918	56627	29	16.974	13.340	56701	8	9.020	15.588	56775	8	5.975	17.126	56849	15	18.417	18.984
56554	14	20.782	11.482	56628	19	17.047	13.584	56702	8	9.420	15.806	56776	27	6.020	17.871	56850	13	18.534	18.155
56555	10	21.188	11.932	56629	30	18.977	13.620	56703	8	10.038	15.378	56777*	56	6.337	17.953	56851	8	18.719	18.410
56556	8	21.342	11.164	56630	8	19.014	13.630	56704	8	10.954	15.270	56778	14	6.371	17.052	56852	8	18.856	18.156
56557	17	23.425	11.155	56631	27	19.253	13.098	56705	26	12.085	15.027	56779	9	6.398	17.950	56853	21	20.967	18.965
56558	9	24.006	11.450	56632	8	19.315	13.335	56706	8	14.252	15.709	56780	42	6.962	17.739	56854	8	21.332	18.507
56559	16	24.092	11.878	56633	8	19.960	13.358	56707	9	15.158	15.491	56781	27	7.300	17.408	56855	17	21.729	18.922
56560	20	24.336	11.278	56634	10	20.094	13.244	56708	8	15.228	15.740	56782	8	7.673	17.550	56856	9	22.080	18.128
56561	17	25.248	11.292	56635	10	20.872	13.372	56709	8	15.370	15.110	56783	8	8.490	17.248	56857	13	22.980	18.467
56562	8	25.902	11.862	56636	9	20.888	13.018	56710*	40	15.466	15.610	56784	25	9.558	17.368	56858	11	23.418	18.464
56563	8	0.612	12.476	56637	12	21.152	13.373	56711	8	17.860	15.438	56785	30	10.071	17.463	56859	16	24.000	18.360
56564	8	1.017	12.440	56638	13	21.444	13.727	56712	8	19.534	15.143	56786	23	11.122	17.260	56860	8	24.132	18.270
56565	9	1.816	12.886	56639	8	21.461	13.970	56713	13	19.690	15.366	56787	22	12.389	17.858	56861	8	24.569	18.175
56566*	63	2.584	12.620	56640	8	22.605	13.538	56714	8	19.976	15.441	56788	45	13.528	17.221	56862	8	24.606	18.352
56567*	40	4.742	12.432	56641	19	22.742	13.013	56715	8	21.352	15.408	56789	10	14.484	17.466	56863	10	25.149	18.328
56568	9	4.956	12.902	56642	10	22.800	13.564	56716	10	22.472	15.192	56790	8	15.128	17.052	56864	10	0.490	19.080
56569	8	5.580	12.901	56643*	64	23.034	13.136	56717	8	24.810	15.551	56791	36	15.225	17.215	56865	11	0.606	19.934
56570	9	6.882	12.778	56644	20	23.881	13.046	56718	8	25.695	15.647	56792*	43	15.516	17.264	56866	14	1.070	19.726
56571	10	7.448	12.940	56645	22	24.166	13.886	56719	8	25.388	15.014	56793	14	15.622	17.818	56867	15	1.809	19.216
56572	9	7.874	12.560	56646	14	24.180	13.200	56720	8	0.679	16.795	56794	25	16.746	17.764	56868	10	6.104	19.485
56573	25	8.454	12.767	56647	8	25.701	13.988	56721	10	1.248	16.394	56795	8	16.779	17.134	56869	8	6.346	19.063
56574	22	8.472	12.271	56648	10	1.040	14.809	56722	23	1.650	16.195	56796	8	16.784	17.568	56870	10	6.651	19.352
56575	8	8.726	12.952	56649	8	1.617	14.927</												



56883	8	14.420	19.330	56957	12	7.202	21.633	57031	9	5.472	23.770	57105	14	8.728	25.314	57161	9	18.326	0.120
56884	8	14.914	19.173	56958	8	8.128	21.234	57032	16	5.943	23.940	57106	28	8.780	25.064	57162	8	19.774	0.974
56885	12	15.204	19.299	56959	23	8.283	21.420	57033	8	6.021	23.782	57107	12	8.962	25.500	57163	11	0.442	1.626
56886	8	15.354	19.558	56960	10	9.208	21.721	57034	8	6.649	23.204	57108	8	10.427	25.322	57164*	26	0.868	1.904
56887	8	16.856	19.616	56961	12	10.378	21.132	57035*	57	8.248	23.235	57109	23	11.890	25.105	57165	13	2.885	1.032
56888	8	17.097	19.017	56962	13	10.452	21.328	57036	21	9.208	23.920	57110	8	12.436	25.139	57166	12	4.022	1.810
56889	31	18.932	19.508	56963	8	10.486	21.070	57037	8	9.544	23.915	57111	28	12.454	25.086	57167	8	5.540	1.539
56890	28	18.954	19.547	56964	8	10.852	21.309	57038*	63	10.000	23.730	57112	13	12.498	25.360	57168	8	5.819	1.930
56891	8	19.967	19.795	56965	33	11.154	21.399	57039	8	10.628	23.951	57113	24	13.764	25.222	57169	12	6.684	1.534
56892	8	20.634	19.952	56966	8	13.120	21.378	57040	8	14.276	23.557	57114	8	14.310	25.430	57170	8	8.727	1.274
56893	14	20.894	19.695	56967	22	13.405	21.582	57041	8	14.470	23.394	57115	8	14.823	25.052	57171	8	11.853	1.956
56894	34	20.984	19.488	56968	13	13.567	21.070	57042	20	15.882	23.344	57116	8	15.054	25.146	57172	10	12.006	1.221
56895	10	21.428	19.534	56969	25	13.856	21.708	57043	9	17.246	23.133	57117	8	15.099	25.818	57173	8	13.112	1.532
56896	10	21.596	19.228	56970	11	14.565	21.054	57044	10	17.288	23.120	57118	8	15.732	25.703	57174*	24	13.411	1.920
56897	8	22.008	19.441	56971	11	15.246	21.505	57045	19	17.490	23.682	57119*	47	15.800	25.250	57175	8	13.560	1.135
56898	23	23.734	19.140	56972	12	16.414	21.025	57046	10	17.554	23.990	57120	17	16.460	25.830	57176	10	13.726	1.904
56899	18	24.384	19.830	56973	8	16.449	21.144	57047	8	18.831	23.470	57121	26	16.900	25.692	57177	8	15.890	1.196
56900	8	24.940	19.540	56974	9	16.460	21.340	57048	9	18.984	23.100	57122	10	17.144	25.092	57178	10	16.136	1.494
56901	23	25.950	19.236	56975	38	17.502	21.896	57049	9	19.152	23.271	57123	8	17.174	25.120	57179	10	16.555	1.593
56902	9	0.006	20.270	56976	8	17.880	21.520	57050	10	19.185	23.188	57124	8	18.476	25.966	57180	12	16.844	1.486
56903	14	1.972	20.775	56977	8	17.907	21.163	57051	8	20.591	23.803	57125	8	18.524	25.704	57181	8	17.530	1.336
56904	25	2.086	20.038	56978	8	18.124	21.548	57052	8	21.053	23.006	57126	8	19.054	25.997	57182	10	17.896	1.355
56905	11	2.172	20.922	56979	8	18.391	21.105	57053	25	22.288	23.740	57127	32	19.253	25.308	57183	13	19.165	1.504
56906	9	2.366	20.516	56980	8	19.534	21.126	57054	25	22.797	23.960	57128	12	19.470	25.274	57184	15	20.494	1.471
56907	28	2.446	20.166	56981	8	19.947	21.150	57055	8	23.218	23.670	57129	8	19.819	25.224	57185	11	22.954	1.400
56908	16	3.300	20.951	56982	8	21.528	21.828	57056	8	23.941	23.920	57130	12	19.913	25.722	57186	8	23.640	1.644
56909	8	3.510	20.613	56983	13	22.598	21.350	57057	8	24.710	23.612	57131	19	20.463	25.940	57187	28	25.454	1.154
56910	11	3.720	20.690	56984	8	23.248	21.794	57058	8	1.848	24.954	57132	8	20.483	25.202	57188	12	25.469	1.149
56911	13	5.440	20.523	56985	12	23.626	21.670	57059	12	2.605	24.825	57133	9	20.662	25.130	57189	8	0.477	2.104
56912	8	7.070	20.102	56986	12	23.842	21.505	57060	8	3.964	24.410	57134	10	20.750	25.459	57190	11	2.418	2.841
56913	8	9.626	20.931	56987	8	24.026	21.370	57061	8	5.343	24.484	57135	8	21.189	25.480	57191	8	4.449	2.751
56914	15	10.580	20.242	56988	16	24.481	21.498	57062	33	6.362	24.046	57136	31	21.498	25.225	57192*	40	5.031	2.155
56915	9	11.066	20.531	56989	12	24.536	21.740	57063	8	9.124	24.863	57137	8	21.653	25.649	57193	8	6.514	2.868
56916	18	11.453	20.424	56990	30	24.677	21.298	57064	8	9.222	24.526	57138	9	22.868	25.790	57194	8	6.932	2.367
56917	9	11.958	20.076	56991	38	25.723	21.480	57065	10	9.262	24.516	57139	43	24.095	25.037	57195	8	7.284	2.592
56918	8	12.023	20.946	56992	8	25.948	21.969	57066	20	9.458	24.308	57140	8	24.340	25.538	57196*	24	7.936	2.180
56919	12	12.632	20.769	56993	13	1.694	22.934	57067	10	9.688	24.534	57141	10	25.600	25.620	57197	10	8.408	2.874
56920	15	12.796	20.541	56994	12	3.116	22.314	57068	8	10.824	24.298					57198	8	11.917	2.696
56921	8	13.903	20.020	56995	8	4.446	22.654	57069	8	11.834	24.808					57199*	20	12.514	2.999
56922	36	13.933	20.215	56996	31	4.982	22.662	57070	9	12.330	24.572					57200	9	15.465	2.587
56923	8	14.058	20.021	56997	8	5.476	22.826	57071	25	12.708	24.264					57201	8	16.077	2.083
56924	8	14.609	20.182	56998	8	5.805	22.503	57072	32	13.010	24.460					57202*	14	16.188	2.816
56925	9	15.646	20.400	56999	8	6.432	22.038	57073	8	13.096	24.744					57203*	13	16.196	2.834
56926	8	16.140	20.350	57000	8	6.484	22.445	57074	8	13.562	24.883					57204	8	17.064	2.198
56927	12	16.932	20.174	57001	12	10.022	22.323	57075	8	14.302	24.402					57205	8	17.743	2.996
56928	8	17.485	20.970	57002	34	10.066	22.470	57076	8	14.332	24.033					57206	15	17.828	2.652
56929	44	18.622	20.178	57003	8	11.731	22.091	57077	8	14.634	24.131					57207	18	21.776	2.714
56930	16	18.971	20.412	57004	10	11.757	22.588	57078	8	15.775	24.876					57208	9	21.946	2.663
56931	9	18.988	20.140	57005	15	12.884	22.210	57079*	56	16.871	24.420					57209	11	23.375	2.172
56932	17	19.702	20.591	57006	26	13.465	22.459	57080	24	17.078	24.514					57210*	40	23.666	2.726
56933	11	20.074	20.374	57007	8	14.337	22.374	57081	8	17.756	24.300					57211	26	23.675	2.697
56934	8	20.246	20.912	57008	9	14.646	22.412	57082	20	18.390	24.279					57212	12	23.774	2.204
56935	11	20.632	20.873	57009	11	14.724	22.198	57083	8	18.571	24.857					57213	8	24.150	2.557
56936	8	21.132	20.639	57010	8	15.120	22.470	57084	9	19.810	24.467					57214	21	24.875	2.600
56937*	55	21.644	20.690	57011	8	15.351	22.070	57085	8	20.693	24.033					57215	25	24.880	2.584
56938	19	23.619	20.342	57012	15	15.605	22.597	57086	8	20.722	24.026					57216	8	0.164	3.899
56939	8	24.063	20.430	57013	8	16.042	22.600	57087	10	20.810	24.110					57217	9	4.838	3.928
56940	8	24.371	20.168	57014	8	17.568	22.116	57088	20	20.986	24.322					57218*	20	6.186	3.753
56941*	45	24.792	20.420	57015	8	18.797	22.166	57089	10	22.218	24.230					57219	8	6.893	3.208
56942	10	24.880	20.057	57016*	41	19.178	22.278	57090	8	24.122	24.432					57220	11	7.991	3.442
56943	8	0.582	21.738	57017	10	19.215	22.630	57091	10	24.744	24.088					57221	14	9.234	3.474
56944	10	0.994	21.672	57018	8	19.961	22.144	57092	10	25.318	24.688					57222	8	9.576	3.475
56945	8	1.214	21.940	57019	11	20.340	22.700	57093	8	25.434	24.290					57223	8	10.484	3.005
56946	8	1.775	21.798	57020	19	20.898	22.222	57094	10	25.914	24.188					57224	8	11.634	3.818
56947	8	2.554	21.504	57021	40	24.292	22.861	57095	8	1.336	25.453					57225	10	11.756	3.465
56948	12	3.491	21.066	57022	9	24.492	22.719	57096	11	3.050	25.545					57226	8	12.026	3.



57235	9	18.820	3.074	57309	11	11.176	6.267	57383	8	21.673	9.432	57457	10	17.148	12.692	57531	8	0.278	16.868
57236	9	20.757	3.176	57310	8	12.416	6.622	57384	20	23.104	9.699	57458	12	19.318	12.948	57532	8	2.264	16.516
57237	11	21.576	3.765	57311	12	14.092	6.168	57385	10	24.486	9.174	57459	13	20.299	12.122	57533	12	3.699	16.818
57238	8	22.016	3.392	57312	8	15.514	6.660	57386	10	24.774	9.154	57460	9	22.188	12.914	57534	8	4.464	16.912
57239*	27	22.314	3.724	57313	9	15.588	6.294	57387	8	25.600	9.124	57461	10	0.015	13.436	57535*	20	11.170	16.118
57240*	37	22.906	3.975	57314	11	16.834	6.994	57388	8	25.722	9.743	57462	8	0.084	13.994	57536	8	11.706	16.364
57241	8	23.350	3.273	57315*	18	18.424	6.395	57389	13	0.310	10.110	57463	29	0.310	13.554	57537	8	13.624	16.662
57242	8	23.548	3.345	57316*	20	18.526	6.626	57390	9	0.805	10.016	57464	10	1.058	13.052	57538	10	15.716	16.613
57243	12	25.714	3.490	57317	13	18.864	6.126	57391	10	1.248	10.248	57465	11	1.163	13.448	57539	8	16.434	16.857
57244	11	25.827	3.773	57318	12	19.408	6.775	57392	8	1.302	10.138	57466	8	1.470	13.600	57540	8	18.650	16.445
57245	11	25.834	3.274	57319*	20	19.782	6.918	57393*	24	1.671	10.692	57467	8	3.375	13.315	57541	9	20.036	16.876
57246	10	0.574	4.876	57320	8	20.132	6.174	57394	12	1.852	10.516	57468	8	5.148	13.246	57542	10	21.460	16.426
57247	8	1.182	4.396	57321	8	20.423	6.380	57395*	26	2.529	10.042	57469	8	5.334	13.922	57543	20	21.975	16.382
57248	15	2.816	4.226	57322*	26	20.858	6.379	57396	9	2.786	10.168	57470	8	5.554	13.824	57544	8	22.766	16.751
57249	8	4.719	4.700	57323	11	21.135	6.904	57397	8	3.454	10.825	57471	8	6.094	13.704	57545	10	25.126	16.193
57250	19	5.328	4.299	57324	8	22.642	6.220	57398	11	4.388	10.130	57472	8	9.064	13.025	57546	10	25.594	16.246
57251	8	5.710	4.854	57325	26	25.064	6.337	57399	14	5.588	10.951	57473	8	10.440	13.514	57547	9	25.790	16.956
57252	11	7.954	4.638	57326	8	25.785	6.030	57400	8	7.510	10.794	57474	8	12.610	13.479	57548	8	25.907	16.546
57253	9	10.724	4.701	57327	8	3.436	7.874	57401	9	7.952	10.847	57475	8	15.496	13.640	57549	8	1.428	17.626
57254	8	12.466	4.086	57328	8	5.746	7.098	57402	12	9.266	10.186	57476	8	16.130	13.354	57550	8	2.115	17.493
57255	9	14.532	4.375	57329	16	6.290	7.197	57403	9	9.544	10.714	57477	8	17.254	13.184	57551	8	2.209	17.586
57256	11	16.243	4.986	57330	8	6.827	7.554	57404	8	12.228	10.200	57478*	26	17.663	13.222	57552	8	2.548	17.554
57257	8	17.016	4.094	57331	8	8.272	7.246	57405	8	16.288	10.454	57479	9	19.161	13.500	57553	8	3.734	17.775
57258*	28	17.346	4.258	57332	8	8.608	7.272	57406	8	16.643	10.606	57480	8	20.490	13.137	57554	14	4.536	17.454
57259	12	19.160	4.176	57333	8	9.247	7.500	57407	8	16.994	10.832	57481	10	20.634	13.824	57555	13	5.333	17.912
57260	10	19.427	4.574	57334	8	13.547	7.525	57408	8	18.728	10.528	57482	8	22.092	13.883	57556	8	7.316	17.319
57261	12	19.614	4.504	57335	8	16.748	7.407	57409*	25	18.810	10.435	57483	10	22.744	13.717	57557	8	9.958	17.608
57262	12	20.524	4.644	57336	8	17.240	7.386	57410	8	19.012	10.242	57484	20	23.198	13.836	57558	10	10.340	17.621
57263	16	20.654	4.594	57337	8	17.410	7.436	57411	8	19.409	10.606	57485	8	23.335	13.390	57559	8	10.778	17.096
57264	8	21.222	4.566	57338	12	17.654	7.148	57412	8	19.921	10.039	57486*	40	24.124	13.985	57560	8	16.386	17.803
57265	8	22.238	4.343	57339	10	17.813	7.338	57413	12	20.081	10.494	57487	9	1.467	14.288	57561	10	16.406	17.689
57266	14	22.713	4.608	57340	9	17.950	7.245	57414	8	20.424	10.736	57488	8	2.394	14.914	57562	8	17.098	17.865
57267	8	0.576	5.427	57341	9	18.230	7.663	57415*	21	21.080	10.054	57489	12	3.608	14.371	57563	8	17.834	17.918
57268	8	1.805	5.116	57342	8	19.450	7.310	57416*	17	21.258	10.269	57490	13	4.574	14.232	57564	20	19.054	17.528
57269	8	2.646	5.064	57343	9	19.610	7.734	57417	14	21.976	10.353	57491	9	4.781	14.340	57565	8	20.626	17.476
57270	9	3.047	5.636	57344	13	19.618	7.836	57418*	16	23.602	10.302	57492	8	5.112	14.328	57566	9	20.634	17.600
57271	8	3.888	5.678	57345	8	19.874	7.050	57419	17	24.602	10.199	57493	9	6.652	14.346	57567	8	22.290	17.168
57272	8	4.754	5.605	57346	13	20.511	7.103	57420	8	24.856	10.110	57494	12	7.061	14.924	57568	10	24.208	17.638
57273	10	6.172	5.924	57347*	20	20.512	7.784	57421	11	25.087	10.938	57495	22	7.565	14.745	57569	9	24.288	17.410
57274	8	7.738	5.256	57348	8	20.668	7.009	57422	11	0.488	11.076	57496*	18	9.717	14.804	57570	10	25.175	17.094
57275	8	8.903	5.752	57349	10	21.968	7.687	57423	8	1.261	11.834	57497*	35	10.174	14.834	57571	8	25.554	17.562
57276	8	9.134	5.572	57350*	20	24.150	7.406	57424	8	1.408	11.376	57498	11	16.496	14.425	57572	8	0.346	18.586
57277	10	12.516	5.168	57351	8	24.562	7.050	57425	10	1.592	11.656	57499	8	17.329	14.397	57573	9	0.352	18.926
57278	13	14.026	5.896	57352	8	1.744	8.583	57426	8	3.722	11.391	57500	13	17.330	14.931	57574	10	1.378	18.800
57279	8	14.148	5.934	57353	8	3.881	8.292	57427	9	5.414	11.036	57501*	12	19.587	14.556	57575	8	2.537	18.745
57280	10	16.134	5.918	57354*	29	8.084	8.155	57428	8	7.296	11.022	57502	10	20.064	14.491	57576	11	3.920	18.060
57281	8	17.438	5.455	57355	8	10.036	8.376	57429	8	8.620	11.552	57503	8	21.994	14.914	57577	8	5.047	18.814
57282	15	17.853	5.897	57356	8	13.256	8.314	57430	8	8.905	11.415	57504	9	24.994	14.126	57578	8	7.762	18.550
57283	8	17.854	5.490	57357	9	14.070	8.468	57431	8	9.294	11.830	57505	8	25.246	14.909	57579	11	7.862	18.526
57284	11	17.985	5.422	57358	12	19.984	8.571	57432	10	10.090	11.412	57506	30	25.406	14.954	57580	9	13.347	18.168
57285	8	18.588	5.194	57359	10	20.316	8.955	57433	11	10.094	11.093	57507	8	25.696	14.986	57581*	40	15.646	18.970
57286	14	19.350	5.304	57360	10	20.734	8.026	57434	18	11.497	11.956	57508	10	1.975	15.070	57582	8	16.784	18.866
57287	8	19.637	5.620	57361	14	20.804	8.315	57435	16	12.371	11.366	57509	8	2.744	15.089	57583	20	19.790	18.918
57288	9	19.824	5.356	57362*	22	20.999	8.292	57436*	35	13.238	11.114	57510	8	4.342	15.684	57584	12	21.006	18.258
57289	11	19.966	5.034	57363	8	21.756	8.074	57437	9	16.434	11.050	57511	8	8.818	15.363	57585	9	21.476	18.106
57290	8	20.070	5.033	57364	18	22.317	8.416	57438	8	16.896	11.524	57512	8	9.319	15.692	57586	10	23.136	18.696
57291	13	20.466	5.374	57365	8	22.345	8.057	57439	9	17.526	11.307	57513	11	9.484	15.338	57587	8	23.719	18.133
57292	18	21.217	5.436	57366	9	24.000	8.578	57440	11	19.730	11.168	57514	8	10.635	15.175	57588	23	23.779	18.048
57293	9	21.262	5.732	57367	18	25.128	8.867	57441	8	20.339	11.366	57515	12	11.189	15.891	57589	10	23.898	18.457
57294	21	21.617	5.548	57368	8	25.400	8.997	57442	8	22.726	11.916	57516	10	14.066	15.164	57590	9	24.350	18.095
57295	8	21.675	5.948	57369*	17	4.310	9.052	57443	38	25.249	11.255	57517*	26	15.379	15.083	57591	15	24.900	18.466
57296	18	22.897	5.627	57370	9	7.025	9.534	57444	10	1.356	12.267	57518*	25	15.928	15.932	57592	12	1.124	19.594
57297	8	0.667	6.052	57371	8	7.756	9.089	57445	8	3.182	12.223	57519	9	16.679	15.900	57593	12	3.362	19.647
57298	15	1.410	6.794	57372															



57605	12	13°896	19°177	57679	8	17°432	22°154	57753	8	23°740	25°016	57846	24	7°617	3°587	57920	11	18°626	9°724
57606	18	18°148	19°936	57680	8	17°878	22°254	57754	29	24°134	25°280	57847	8	13°032	3°733	57921*	32	20°802	9°759
57607*	18	19°073	19°101	57681	13	19°778	22°196	57755	8	25°890	25°111	57848	8	13°035	3°213	57922	8	21°226	9°866
57608	9	21°669	19°951	57682*	29	20°794	22°638					57849	30	13°130	3°894	57923	21	24°050	9°752
57609	12	23°272	19°450	57683	13	23°968	22°016					57850	8	16°712	3°566	57924*	38	24°204	9°858
57610	19	23°680	19°320	57684	17	24°634	22°096					57851	10	20°848	3°695	57925	10	2°862	10°535
57611	8	24°345	19°380	57685	8	25°856	22°240					57852	24	0°506	4°254	57926*	50	3°023	10°848
57612	18	25°177	19°534	57686	17	1°755	23°334					57853	12	4°461	4°031	57927*	32	5°862	10°742
57613	16	25°242	19°550	57687	8	2°859	23°438					57854	8	5°507	4°212	57928	8	7°196	10°784
57614	8	25°461	19°736	57688	9	3°769	23°787					57855	20	5°773	4°884	57929	25	20°286	10°183
57615	10	1°032	20°806	57689*	25	3°930	23°492					57856	26	6°226	4°818	57930	28	20°792	10°764
57616	11	1°794	20°276	57690	8	4°038	23°319					57857	8	8°956	4°275	57931	16	4°467	11°015
57617*	20	2°214	20°864	57691	9	4°610	23°644					57858*	33	9°484	4°438	57932	10	6°698	11°100
57618	8	2°296	20°496	57692	13	5°530	23°870					57859	8	9°511	4°016	57933	9	9°900	11°848
57619	8	4°250	20°634	57693	17	6°088	23°743					57860	12	14°926	4°079	57934	10	12°818	11°150
57620	13	5°037	20°854	57694	8	6°192	23°558					57861	10	15°766	4°435	57935	8	13°690	11°492
57621	9	5°184	20°778	57695	8	7°544	23°855					57862	10	18°867	4°306	57936	17	17°539	11°902
57622	11	5°637	20°569	57696	15	8°266	23°136					57863	8	23°844	4°129	57937	9	20°821	11°504
57623	8	5°792	20°650	57697	11	9°054	23°902					57864	11	24°042	4°862	57938	8	21°752	11°063
57624	9	6°263	20°874	57698	8	9°691	23°726					57865	26	0°690	5°264	57939*	52	22°934	11°640
57625	10	7°387	20°587	57699	8	11°450	23°370					57866*	38	2°836	5°970	57940	10	24°362	11°539
57626	8	8°274	20°533	57700	8	14°251	23°307					57867	8	3°558	5°663	57941	8	25°598	11°324
57627	8	8°553	20°146	57701	12	14°605	23°963					57868	21	3°842	5°652	57942	8	3°795	12°848
57628	8	8°686	20°020	57702*	16	15°646	23°419					57869	10	6°116	5°280	57943	24	4°824	12°439
57629	9	8°931	20°930	57703	8	16°625	23°942					57870	8	9°040	5°576	57944	10	6°044	12°898
57630	10	11°435	20°769	57704	10	18°702	23°943					57871	8	15°078	5°280	57945	12	13°835	12°252
57631	10	14°926	20°484	57705	8	18°756	23°160					57872	10	18°372	5°116	57946	12	19°439	12°414
57632	9	15°866	20°780	57706	12	19°306	23°960					57873	24	19°436	5°064	57947*	48	22°832	12°762
57633	8	15°915	20°474	57707	8	20°925	23°894					57874	8	19°718	5°237	57948	10	23°428	12°862
57634	8	17°062	20°146	57708	8	21°202	23°438					57875	8	24°769	5°470	57949	11	23°568	12°044
57635	8	17°121	20°536	57709	8	22°494	23°280					57876	15	4°212	6°835	57950	13	24°034	12°396
57636	12	17°924	20°520	57710	16	24°477	23°115					57877	10	9°720	6°824	57951	10	25°254	12°706
57637	8	20°308	20°156	57711	8	25°684	23°287					57878	24	12°855	6°166	57952	9	0°540	13°292
57638	8	20°605	20°907	57712	12	0°266	24°70					57879	29	17°372	6°750	57953	31	0°994	13°410
57639	15	20°794	20°398	57713	8	2°234	24°564					57880	11	17°628	6°956	57954*	62	1°904	13°556
57640	12	21°104	20°836	57714	9	3°418	24°646					57881*	28	19°631	6°606	57955	28	4°675	13°320
57641	15	23°402	20°205	57715	8	4°664	24°902					57882	9	21°478	6°978	57956*	45	5°215	13°268
57642	10	24°428	20°575	57716	12	5°138	24°564					57883	38	25°512	6°073	57957*	40	6°226	13°974
57643	13	24°656	20°486	57717	9	14°100	24°034					57884	9	25°640	6°249	57958	22	6°938	13°402
57644	8	25°396	20°391	57718	8	14°794	24°491					57885*	37	1°935	7°026	57959	14	7°040	13°095
57645	8	0°021	21°841	57719	9	15°276	24°135					57886	29	8°927	7°200	57960	10	7°054	13°938
57646	8	1°280	21°975	57720	10	15°480	24°550					57887	9	9°965	7°478	57961	18	9°941	13°788
57647	8	1°462	21°836	57721	8	15°826	24°327					57888	11	12°624	7°644	57962	10	12°398	13°679
57648	11	1°921	21°954	57722	12	17°390	24°019					57889	10	13°656	7°406	57963	8	13°644	13°071
57649	13	2°116	21°750	57723	8	20°354	24°514					57890	10	21°609	7°432	57964	8	14°688	13°492
57650	20	3°172	21°915	57724	12	21°135	24°174					57891	34	0°116	8°028	57965	9	17°312	13°900
57651	8	5°030	21°698	57725*	24	23°156	24°606					57892	10	1°785	8°194	57966	10	17°978	13°206
57652	9	8°194	21°401	57726	18	1°596	25°528					57893	20	2°905	8°479	57967	8	19°064	13°328
57653	12	8°254	21°788	57727	8	2°825	25°150					57894	8	3°175	8°606	57968	27	22°678	13°186
57654	8	9°986	21°832	57728	10	4°562	25°717					57895	8	3°377	8°733	57969	8	22°754	13°798
57655	8	10°303	21°785	57729	8	4°612	25°122					57896*	26	3°948	8°604	57970	13	24°888	13°926
57656	8	10°770	21°024	57730	12	4°680	25°682					57897	12	4°747	8°864	57971	40	24°945	13°042
57657	8	11°242	21°696	57731	10	4°849	25°728					57898	8	5°212	8°586	57972	10	3°024	14°472
57658	10	11°964	21°465	57732	9	6°386	25°330					57899	10	9°538	8°362	57973*	46	3°183	14°518
57659	13	12°886	21°298	57733	9	6°703	25°768					57900	18	11°666	8°004	57974	8	3°470	14°552
57660	8	16°284	21°648	57734	8	10°895	25°043					57901	8	13°408	8°548	57975	11	3°590	14°645
57661	20	20°956	21°376	57735	10	11°204	25°302					57902	9	15°535	8°630	57976	8	3°890	14°306
57662	8	21°562	21°659	57736	8	12°183	25°340					57903*	26	16°192	8°098	57977*	30	4°337	14°596
57663	8	21°817	21°828	57737	8	12°244	25°272					57904	12	16°258	8°062	57978	26	6°704	14°280
57664	8	22°330	21°295	57738	8	13°478	25°254					57905	10	17°419	8°837	57979*	28	7°046	14°618
57665	8	23°400	21°161	57739*	27	14°302	25°504					57906*	43	17°720	8°836	57980	10	10°320	14°258
57666	10	24°824	21°786	57740	9	14°551	25°938					57907*	24	20°552	8°441	57981	8	15°596	14°860
57667	8	1°063	22°146	57741	8	15°206	25°159					57908	9	21°332	8°006	57982	22	15°632	14°752
57668	8	1°982	22°198	57742	8	15°335	25°850					57909	25	0°895	9°304	57983	8	17°132	14°424
57669	8	6°269	22°075	57743	8	15°485	25°760					57910*	25	1°390	9°904	57984	8	18°549	14°987
57670	12	7°482	22°061	57744	10	15°694	25°517					57911	20	2°382	9°802	57985	9	21°204	14°734
57671	8	7°504	22°062	57745	11	16°154	25°674					57912	8	2°636	9°710	57986	11	21°780	14°654
57672	8	9°657	22°082	57746	8	17°792	25°156					57913	15	10°625	9°796	57987	8	22°570	14°870
57673	12	10°617	22°627	57747	8	18°313	25°475					57914	8	11°945	9°162	57988	8	22°984	14°272
57674	12	13°090	22°802	57748	12	19°600	25°771					57915	8	13°566	9°052	57989	20	23°355	14°069
57675	8	13°																	



57994	18	24.526	14.826	58068	11	1.548	20.082	58142	10	24.152	24.160	58235	8	9.638	1.359	58309	8	19.546	3.585
57995	10	0.704	15.526	58069	9	2.216	20.096	58143	10	0.557	25.165	58236	9	11.168	1.790	58310	8	19.658	3.636
57996	8	2.690	15.072	58070	14	2.440	20.004	58144	60	1.207	25.250	58237	17	11.524	1.944	58311	11	19.765	3.719
57997	10	2.900	15.746	58071	10	4.235	20.936	58145	44	5.005	25.355	58238	10	11.710	1.714	58312	17	19.800	3.094
57998	9	3.368	15.802	58072	20	5.126	20.174	58146	20	12.228	25.264	58239	10	12.968	1.164	58313	16	20.554	3.211
57999*	51	3.383	15.403	58073	9	7.724	20.305	58147	12	13.470	25.824	58240	8	13.196	1.910	58314	12	21.160	3.730
58000	11	5.662	15.178	58074	8	7.727	20.903	58148	9	13.661	25.884	58241	12	14.784	1.934	58315	10	22.032	3.286
58001	12	7.316	15.845	58075	12	12.742	20.380	58149	11	14.404	25.787	58242	8	16.338	1.122	58316	12	22.488	3.431
58002	44	9.401	15.052	58076	8	14.414	20.795	58150	9	18.166	25.535	58243	14	16.360	1.050	58317	12	22.824	3.584
58003	12	11.115	15.540	58077	8	14.706	20.304	58151	15	19.297	25.062	58244	8	18.174	1.122	58318	22	23.135	3.118
58004	20	22.882	15.650	58078*	60	16.226	20.700	58152	40	20.474	25.612	58245	12	18.598	1.234	58319	31	25.320	3.455
58005	15	25.016	15.796	58079	11	19.360	20.572	58153	13	21.484	25.996	58246	11	18.845	1.669	58320	14	1.323	4.530
58006	8	2.075	16.952	58080*	42	21.770	20.572	58154	9	22.104	25.574	58247	12	19.744	1.942	58321	11	2.554	4.672
58007	10	2.953	16.641	58081	10	23.050	20.322	58155	13	23.945	25.578	58248	14	20.522	1.202	58322	9	5.086	4.210
58008	10	3.565	16.502	58082	12	23.230	20.808					58249	21	22.490	1.827	58323	34	5.096	4.935
58009	9	6.407	16.188	58083	11	24.169	20.252					58250	8	22.522	1.715	58324	24	6.029	4.585
58010	12	6.635	16.756	58084	8	24.390	20.754					58251	26	22.708	1.230	58325	20	6.344	4.742
58011	11	9.296	16.570	58085	10	25.952	20.625					58252*	56	24.406	1.368	58326	8	7.183	4.089
58012	11	9.450	16.880	58086	13	1.756	21.524					58253	14	25.470	1.950	58327	14	7.444	4.776
58013*	31	9.636	16.024	58087	28	2.418	21.603					58254	42	25.757	1.450	58328	14	8.440	4.738
58014	12	15.741	16.999	58088	8	2.606	21.296					58255	36	0.172	2.636	58329	10	9.600	4.276
58015*	88	18.568	16.915	58089	9	3.634	21.745					58256	38	0.207	2.350	58330*	31	10.176	4.904
58016	19	24.160	16.764	58090	9	8.242	21.012					58257	10	0.846	2.360	58331	14	10.876	4.526
58017	14	24.267	16.810	58091	8	10.740	21.626					58258	12	1.964	2.841	58332	8	11.627	4.294
58018	8	24.866	16.081	58092	8	11.598	21.720					58259	14	2.741	2.124	58333	10	12.682	4.430
58019	10	24.918	16.187	58093	8	12.865	21.676					58260	22	3.661	2.161	58334	15	17.440	4.383
58020	49	25.700	16.298	58094	12	15.772	21.206					58261	14	3.744	2.309	58335	13	21.248	4.547
58021	34	1.570	17.588	58095	8	16.365	21.187					58262*	36	4.134	2.183	58336	9	22.798	4.836
58022	11	1.685	17.998	58096	9	16.510	21.246					58263	14	5.558	2.742	58337	15	22.806	4.887
58023	9	1.996	17.184	58097	20	17.034	21.290					58264	13	9.492	2.036	58338	13	23.274	4.600
58024	8	2.135	17.633	58098*	41	18.084	21.614					58265	13	10.383	2.496	58339	9	23.358	4.836
58025	9	3.328	17.105	58099	10	20.946	21.872					58266	40	10.466	2.569	58340	13	24.048	4.604
58026*	40	4.064	17.013	58100	22	21.304	21.958					58267	14	10.800	2.833	58341	10	24.678	4.904
58027	10	8.714	17.366	58101	8	22.740	21.156					58268	36	10.812	2.969	58342	16	0.830	5.530
58028	12	10.341	17.760	58102	8	22.763	21.582					58269	34	11.694	2.026	58343	8	1.150	5.301
58029*	20	12.026	17.166	58103	19	24.996	21.704					58270	32	17.142	2.405	58344	20	1.535	5.260
58030*	69	12.654	17.423	58104	20	2.264	22.614					58271	8	18.046	2.470	58345	8	1.716	5.550
58031	8	14.795	17.274	58105	10	5.283	22.188					58272	13	18.379	2.604	58346	16	2.274	5.854
58032	10	17.382	17.008	58106	8	9.196	22.210					58273	12	18.929	2.819	58347	9	4.950	5.865
58033	9	18.142	17.107	58107	8	13.228	22.730					58274	12	20.863	2.979	58348	21	4.954	5.512
58034	9	22.544	17.153	58108	14	14.952	22.700					58275	12	21.086	2.804	58349	20	6.402	5.785
58035	11	0.930	18.232	58109	20	17.606	22.056					58276	40	21.509	2.472	58350	11	6.579	5.826
58036	20	1.066	18.978	58110	17	18.120	22.688					58277	36	22.875	2.874	58351	18	6.794	5.174
58037	31	1.470	18.849	58111	8	19.218	22.324					58278	11	23.904	2.833	58352	13	7.126	5.576
58038	15	2.681	18.003	58112*	32	21.900	22.735					58279	13	24.236	2.604	58353	14	7.143	5.186
58039	9	6.320	18.860	58113	8	22.088	22.701					58280	10	24.450	2.201	58354*	36	8.557	5.864
58040	9	6.444	18.810	58114	8	22.644	22.300					58281	14	0.476	3.348	58355	21	8.644	5.404
58041	8	6.475	18.166	58115*	40	22.782	22.215					58282	12	1.893	3.790	58356	14	8.914	5.964
58042	31	14.410	18.306	58116	10	25.554	22.916					58283	9	2.624	3.798	58357	8	10.556	5.752
58043	9	15.180	18.476	58117	9	25.726	22.468					58284	9	3.500	3.559	58358	24	12.344	5.166
58044	20	16.252	18.455	58118	28	4.783	23.264					58285	11	3.744	3.377	58359	9	12.516	5.990
58045	9	19.157	18.314	58119	11	5.170	23.675					58286	8	5.667	3.486	58360*	20	12.712	5.131
58046	8	21.621	18.154	58120	8	7.320	23.221					58287	10	5.708	3.790	58361	11	13.816	5.206
58047	8	21.825	18.410	58121	8	9.579	23.475					58288	10	5.825	3.077	58362	9	14.050	5.798
58048	8	23.720	18.401	58122	31	13.080	23.450					58289	16	6.326	3.972	58363*	36	14.370	5.173
58049	10	25.515	18.081	58123	10	13.572	23.257					58290	37	6.522	3.531	58364	24	14.924	5.664
58050	20	1.196	19.726	58124	10	15.843	23.019					58291	9	6.584	3.455	58365	21	15.464	5.228
58051	8	1.528	19.079	58125*	43	19.608	23.839					58292	19	6.671	3.579	58366*	82	15.776	5.336
58052	23	2.956	19.062	58126	9	21.531	23.315					58293	36	7.919	3.711	58367	12	16.129	5.552
58053	18	3.017	19.076	58127*	35	0.952	24.093					58294	11	9.365	3.315	58368	11	16.564	5.076
58054	8	3.075	19.638	58128	40	1.920	24.766					58295	12	9.494	3.252	58369	36	17.304	5.047
58055	8	3.175	19.911	58129	9	7.914	24.838					58296	22	11.282	3.599	58370	14	19.277	5.834
58056	8	3.236	19.263	58130	33	10.113	24.963					58297	9	11.424	3.246	58371	9	19.520	5.734
58057	13	4.476	19.201	58131	10	10.440	24.300					58298	8	12.139	3.199	58372	11	19.765	5.234
58058	11	9.935	19.583	58132	10	10.658	24.152					58299	8	12.244	3.356	58373	20	22.114	5.194
58059	12	9.997	19.966	58133	8	11.322	24.961					58300	17	12.650	3.504	58374	12	22.451	5.023
58060	14	10.431	19.668	58134*	132	12.509	24.484					58301	13	12.857	3.241	58375	8	22.829	5.700
58061	8	16.652	19.946	58135	8	13.602	24.902					58302	8	12.898	3.425	58376	13	23.282	5.992
58062	18	18.385	19.863	58136	11	17.033	24.624					58303*	72	13.690	3.096	58377	9	23.337	5.146
58063	15	18.850	19.042</																



58383	16	3°156	6°615	58457	13	22°236	8°016	58531	22	3°642	11°534	58605	8	9°504	13°086	58679	14	23°156	15°465
58384	11	4°166	6°415	58458	28	23°329	8°286	58532	12	4°150	11°432	58606	36	9°530	13°546	58680	34	23°974	15°050
58385	12	4°504	6°566	58459	9	24°025	8°954	58533	24	5°416	11°318	58607	10	9°984	13°162	58681	10	24°734	15°735
58386*	42	5°015	6°945	58460	12	0°252	9°585	58534	10	7°840	11°400	58608	8	10°585	13°146	58682	19	24°900	15°707
58387*	46	6°173	6°058	58461	10	1°224	9°877	58535	14	9°880	11°914	58609	36	10°636	13°226	58683	11	0°234	16°393
58388	16	10°755	6°289	58462	11	2°231	9°258	58536	10	10°988	11°128	58610	17	11°126	13°040	58684	32	0°584	16°066
58389	10	11°250	6°644	58463	9	2°900	9°375	58537	8	11°580	11°481	58611	16	12°671	13°655	58685	9	1°058	16°494
58390	16	11°507	6°324	58464	18	3°854	9°799	58538	11	13°826	11°678	58612	12	12°788	13°742	58686	17	2°576	16°461
58391	9	11°846	6°367	58465	9	4°664	9°733	58539	11	14°567	11°190	58613	20	13°658	13°224	58687	16	2°627	16°566
58392	9	13°036	6°928	58466	8	4°688	9°905	58540	25	16°224	11°335	58614	13	14°744	13°764	58688	23	2°719	16°172
58393	14	13°075	6°703	58467	20	9°421	9°142	58541	8	16°500	11°428	58615	8	15°250	13°545	58689	8	3°113	16°650
58394	9	13°424	6°886	58468	19	9°532	9°694	58542	33	16°713	11°614	58616	17	16°351	13°314	58690*	60	3°408	16°660
58395	21	14°216	6°037	58469*	38	10°340	9°442	58543	13	17°374	11°355	58617	8	17°094	13°771	58691	18	4°056	16°254
58396	8	14°500	6°700	58470	8	11°402	9°165	58544	10	18°387	11°484	58618	13	18°691	13°359	58692	11	4°086	16°984
58397	8	18°378	6°845	58471	8	12°082	9°842	58545	12	18°561	11°872	58619	9	20°733	13°478	58693	9	4°896	16°251
58398	9	19°409	6°408	58472	14	12°083	9°604	58546	19	19°255	11°965	58620	32	21°206	13°658	58694	17	6°745	16°186
58399	12	19°856	6°894	58473	8	12°448	9°689	58547	13	20°364	11°218	58621	10	22°962	13°658	58695	8	6°906	16°073
58400*	56	20°641	6°593	58474	8	13°562	9°231	58548	11	22°805	11°076	58622	26	23°350	13°021	58696	20	8°742	16°693
58401	21	20°911	6°448	58475	12	13°874	9°276	58549	60	0°552	12°056	58623*	33	23°577	13°026	58697	8	9°174	16°855
58402	8	22°575	6°156	58476	18	14°373	9°668	58550	10	0°865	12°224	58624	15	24°084	13°683	58698	11	9°744	16°394
58403	22	23°416	6°880	58477	10	15°756	9°565	58551	10	1°192	12°088	58625	10	24°123	13°149	58699	9	10°900	16°052
58404	13	23°894	6°353	58478	18	17°774	9°173	58552	20	1°200	12°446	58626	8	24°817	13°706	58700	8	11°654	16°992
58405	8	24°384	6°792	58479	9	18°764	9°342	58553	20	1°672	12°793	58627	11	25°116	13°308	58701	18	11°896	16°369
58406	11	24°484	6°477	58480	11	19°180	9°336	58554	13	2°422	12°165	58628	18	25°620	13°350	58702	11	12°326	16°803
58407*	60	24°717	6°636	58481	9	19°302	9°456	58555	10	3°916	12°334	58629	15	0°416	14°216	58703	12	13°556	16°544
58408	24	25°056	6°908	58482	16	20°194	9°552	58556	19	4°118	12°686	58630	14	0°656	14°687	58704	15	16°024	16°168
58409	14	2°903	7°294	58483	10	20°562	9°083	58557*	74	4°530	12°556	58631	28	1°024	14°478	58705	13	16°106	16°224
58410	8	3°908	7°405	58484	10	21°878	9°904	58558	13	6°293	12°072	58632	11	1°247	14°795	58706	20	16°644	16°158
58411	12	5°096	7°916	58485	14	22°334	9°055	58559	20	7°310	12°154	58633	37	1°300	14°476	58707	8	18°364	16°869
58412*	38	5°822	7°400	58486	10	23°035	9°746	58560	11	7°443	12°206	58634	14	1°446	14°876	58708	22	19°350	16°596
58413	8	6°904	7°966	58487	9	23°384	9°426	58561	12	7°532	12°388	58635	17	1°706	14°524	58709	20	19°871	16°276
58414	11	7°166	7°538	58488	23	23°974	9°066	58562	10	9°681	12°876	58636	26	2°556	14°305	58710	15	21°600	16°624
58415	21	8°785	7°147	58489	9	0°919	10°629	58563	16	10°200	12°126	58637	8	2°674	14°164	58711	12	21°878	16°934
58416	9	9°106	7°626	58490	30	1°634	10°149	58564	28	10°505	12°994	58638	13	3°786	14°918	58712	8	21°896	16°695
58417	14	9°234	7°894	58491*	42	1°792	10°254	58565	21	12°447	12°695	58639	34	4°113	14°326	58713	30	22°414	16°876
58418	13	9°725	7°521	58492	12	2°557	10°306	58566	10	14°324	12°196	58640	28	4°136	14°515	58714	12	24°005	16°327
58419	13	10°198	7°704	58493	9	4°367	10°156	58567	36	15°294	12°070	58641	8	5°097	14°837	58715	10	24°580	16°768
58420	21	10°348	7°633	58494	8	4°984	10°304	58568	11	15°726	12°904	58642	12	5°200	14°246	58716	21	24°689	16°645
58421	12	11°668	7°936	58495	12	5°720	10°914	58569	8	16°076	12°354	58643	11	6°213	14°470	58717	11	24°810	16°656
58422	24	14°216	7°510	58496	8	8°076	10°854	58570*	46	16°093	12°206	58644	18	8°844	14°015	58718	18	0°270	17°576
58423	8	14°443	7°116	58497	16	9°400	10°914	58571	24	16°106	12°613	58645	16	9°637	14°206	58719	9	0°642	17°418
58424	8	14°994	7°834	58498	8	9°596	10°401	58572	11	17°884	12°642	58646	10	10°660	14°128	58720	11	1°650	17°840
58425	9	19°009	7°712	58499	10	11°384	10°504	58573*	58	19°135	12°908	58647	36	17°028	14°464	58721	27	1°883	17°156
58426	8	20°502	7°864	58500	8	11°664	10°624	58574	9	19°254	12°467	58648	9	17°176	14°084	58722	24	1°994	17°199
58427	9	20°967	7°376	58501	14	11°788	10°676	58575	28	20°144	12°692	58649	8	18°122	14°710	58723	13	2°339	17°756
58428*	40	21°017	7°156	58502	13	11°894	10°043	58576	19	20°526	12°214	58650	20	18°312	14°515	58724	18	2°692	17°056
58429	10	21°095	7°744	58503	28	12°314	10°318	58577	11	20°564	12°582	58651	28	19°966	14°553	58725	9	2°965	17°474
58430	37	21°833	7°074	58504	9	12°321	10°479	58578	32	21°774	12°457	58652	27	20°044	14°816	58726	15	3°200	17°094
58431	15	22°285	7°475	58505	14	12°724	10°800	58579	15	23°124	12°684	58653	20	20°904	14°960	58727	17	3°789	17°095
58432	23	22°330	7°505	58506	9	14°080	10°212	58580	13	23°288	12°609	58654	9	21°214	14°478	58728	14	5°158	17°784
58433	24	22°380	7°414	58507	38	15°004	10°030	58581	14	23°294	12°574	58655	21	22°561	14°534	58729	9	6°020	17°936
58434	14	22°544	7°609	58508	13	16°833	10°124	58582	15	23°476	12°987	58656	11	23°624	14°594	58730	8	6°254	17°604
58435	11	23°914	7°980	58509	8	18°412	10°262	58583	34	23°757	12°673	58657	11	24°212	14°889	58731	14	7°065	17°933
58436	9	25°236	7°286	58510	12	19°378	10°104	58584	14	24°176	12°588	58658	9	24°264	14°474	58732	8	8°265	17°394
58437	62	25°503	7°084	58511	24	20°814	10°092	58585	14	25°686	12°790	58659	13	24°355	14°692	58733	8	8°556	17°540
58438	9	25°526	7°900	58512	10	21°240	10°144	58586	36	0°332	13°608	58660	34	25°130	14°579	58734	30	9°174	17°736
58439	38	25°699	7°814	58513	13	21°521	10°171	58587	56	0°470	13°184	58661	13	0°256	15°294	58735	14	10°034	17°605
58440	13	0°961	8°538	58514	11	22°516	10°631	58588	11	0°719	13°130	58662	29	2°210	15°212	58736	11	13°170	17°894
58441	8	2°744	8°903	58515*	56	22°943	10°550	58589	21	1°075	13°268	58663	36	5°032	15°314	58737	10	13°524	17°543
58442	11	3°894	8°048	58516	36	22°964	10°301	58590	8	2°033	13°331	58664	20	7°954	15°826	58738	11	14°526	17°585
58443	17	5°769	8°646	58517	23	23°074	10°364	58591	40	2°592	13°423	58665	22	10°888	15°482	58739	11	14°752	17°726
58444	14	5°834	8°041	58518	37	23°205	10°734	58592	21	2°895	13°082	58666	8	11°548	15°193	58740	13	14°924	17°216
58445	15	6°493	8°744	58519	10	23°672	10°755	58593	10	3°094	13°308	586							



58753	8	23.229	17.484	58827	9	25.358	19.746	58901	20	3.560	22.830	58975	11	16.804	24.306	59059*	24	2.968	1.720
58754	16	23.380	17.598	58828	13	25.786	19.114	58902	14	4.388	22.218	58976	13	17.924	24.974	59060	8	4.672	1.687
58755	17	23.792	17.423	58829	13	0.236	20.225	58903	36	6.078	22.484	58977	15	18.251	24.160	59061	9	4.770	1.324
58756	16	23.938	17.324	58830	21	0.838	20.738	58904	12	9.914	22.276	58978	28	19.762	24.591	59062	8	12.431	1.003
58757	12	25.358	17.306	58831	13	1.035	20.010	58905	10	12.437	22.628	58979	36	20.318	24.971	59063	9	12.882	1.750
58758	11	0.076	18.313	58832	10	1.820	20.824	58906	14	12.757	22.314	58980	9	20.418	24.634	59064*	31	13.961	1.420
58759	10	0.746	18.430	58833	20	1.958	20.645	58907	8	13.974	22.747	58981	18	23.807	24.404	59065	9	14.668	1.994
58760	17	1.474	18.802	58834	20	3.749	20.985	58908	8	17.517	22.479	58982	14	24.277	24.639	59066*	28	20.075	1.458
58761	8	1.558	18.702	58835	8	4.133	20.774	58909*	48	17.539	22.968	58983	16	0.048	25.098	59067	8	21.612	1.899
58762	12	2.084	18.148	58836	10	4.500	20.208	58910	10	18.865	22.285	58984	14	0.604	25.309	59068*	24	22.952	1.142
58763	18	3.262	18.445	58837	13	4.663	20.676	58911	21	19.129	22.596	58985	11	0.686	25.546	59069	10	24.067	1.435
58764	13	3.372	18.182	58838	8	4.736	20.346	58912	8	20.114	22.927	58986	28	1.836	25.975	59070	8	5.322	2.870
58765	13	3.876	18.180	58839	34	4.762	20.060	58913	11	20.752	22.970	58987	28	2.018	25.316	59071	8	6.048	2.668
58766	10	4.186	18.197	58840	10	5.070	20.480	58914	10	21.527	22.056	58988	16	3.076	25.960	59072	8	6.297	2.800
58767	10	4.635	18.775	58841	11	6.864	20.523	58915	19	21.530	22.040	58989	16	4.594	25.526	59073	8	8.063	2.769
58768	12	5.789	18.327	58842	16	6.925	20.168	58916	15	23.318	22.596	58990	12	4.913	25.621	59074	9	8.186	2.597
58769	8	6.235	18.134	58843	9	7.874	20.834	58917	10	23.528	22.568	58991	11	5.652	25.153	59075	11	9.072	2.800
58770	14	6.924	18.920	58844	9	9.784	20.017	58918*	34	24.422	22.990	58992	39	6.094	25.192	59076*	27	17.518	2.246
58771	8	7.554	18.752	58845	15	11.036	20.808	58919	17	24.727	22.631	58993	16	6.096	25.690	59077	8	18.124	2.304
58772	18	7.854	18.437	58846	9	11.288	20.795	58920	14	25.570	22.693	58994	36	6.118	25.426	59078	8	20.952	2.349
58773	17	8.586	18.185	58847	8	11.418	20.614	58921	12	25.676	22.306	58995	10	8.154	25.238	59079	20	0.080	3.189
58774	13	9.635	18.502	58848	16	11.526	20.093	58922	21	3.394	23.278	58996	10	8.300	25.160	59080	9	0.345	3.433
58775	17	9.786	18.703	58849	23	11.784	20.918	58923	12	4.815	23.812	58997	11	9.237	25.154	59081	11	2.554	3.746
58776	26	10.430	18.978	58850	10	14.375	20.378	58924	10	5.954	23.866	58998	13	9.567	25.864	59082	12	6.436	3.454
58777	8	11.312	18.134	58851	15	15.316	20.884	58925	10	6.286	23.734	58999	8	10.144	25.323	59083	9	8.200	3.062
58778	11	12.354	18.933	58852	21	15.539	20.114	58926	31	6.387	23.030	59000	20	10.254	25.777	59084	9	8.340	3.950
58779	10	16.216	18.164	58853	13	16.834	20.176	58927	9	6.402	23.023	59001	12	12.779	25.333	59085	11	9.385	3.926
58780	22	16.402	18.573	58854	8	17.273	20.187	58928	16	6.664	23.318	59002	10	12.806	25.889	59086	9	10.610	3.460
58781	9	17.176	18.196	58855	9	18.818	20.191	58929	16	6.738	23.094	59003	12	15.614	25.933	59087	8	12.712	3.494
58782	37	18.042	18.335	58856	12	19.903	20.275	58930	9	7.384	23.615	59004	8	16.116	25.137	59088	11	13.266	3.551
58783*	36	18.154	18.966	58857	9	20.764	20.196	58931	20	7.965	23.346	59005	20	16.400	25.093	59089	8	16.816	3.690
58784	12	18.930	18.346	58858	14	22.080	20.722	58932	20	9.074	23.807	59006	8	16.434	25.142	59090	8	18.622	3.227
58785	9	19.194	18.196	58859	9	22.724	20.446	58933*	36	9.268	23.558	59007	32	16.674	25.694	59091	8	19.640	3.770
58786	17	19.200	18.768	58860	15	22.750	20.607	58934	13	9.665	23.544	59008	19	17.473	25.102	59092	16	19.718	3.212
58787	12	19.620	18.355	58861	14	22.940	20.254	58935	26	9.786	23.005	59009	16	19.201	25.684	59093	9	24.905	3.182
58788	26	19.950	18.401	58862	11	23.336	20.266	58936	30	11.756	23.306	59010	22	21.246	25.798	59094	13	9.671	4.800
58789	10	20.272	18.918	58863	18	23.580	20.895	58937	36	11.770	23.308	59011	16	21.746	25.675	59095	8	11.312	4.026
58790	10	20.786	18.209	58864	11	23.740	20.390	58938	15	12.134	23.344	59012	20	23.334	25.784	59096	8	14.978	4.748
58791	15	22.400	18.082	58865	18	25.433	20.390	58939	12	13.116	23.241	59013	8	24.924	25.316	59097	8	15.096	4.516
58792	18	23.460	18.846	58866	12	0.234	21.583	58940	18	13.528	23.586	59014	51	25.396	25.466	59098	11	17.828	4.660
58793	18	24.719	18.638	58867	8	0.523	21.596	58941	10	14.697	23.164					59099	23	18.262	4.050
58794	28	25.066	18.612	58868	16	0.546	21.574	58942	9	16.200	23.840					59100	20	18.523	4.810
58795	36	25.164	18.853	58869	12	0.896	21.954	58943	12	17.826	23.913					59101	8	22.836	4.156
58796	20	0.337	19.676	58870	22	1.026	21.220	58944	11	18.118	23.968					59102	11	23.400	4.902
58797	11	1.356	19.282	58871	8	1.716	21.742	58945	19	18.216	23.876					59103	8	1.924	5.214
58798	8	1.619	19.714	58872	18	2.193	21.145	58946	14	21.435	23.175					59104	14	4.526	5.144
58799	12	2.792	19.438	58873	12	4.279	21.336	58947	12	21.700	23.950					59105	9	7.518	5.194
58800	8	3.452	19.096	58874	13	8.480	21.970	58948	12	22.188	23.986					59106	10	9.605	5.220
58801	18	3.709	19.854	58875	10	8.791	21.640	58949	28	23.108	23.726					59107	9	11.084	5.287
58802	13	4.230	19.168	58876*	34	10.966	21.760	58950	16	24.477	23.153					59108	8	11.814	5.325
58803	10	6.264	19.796	58877	16	11.440	21.484	58951	33	24.934	23.236					59109	14	12.042	5.210
58804	30	6.392	19.682	58878	11	12.654	21.972	58952	22	25.534	23.942					59110	8	12.260	5.259
58805	8	6.556	19.755	58879	10	13.072	21.527	58953	15	1.736	24.473					59111	16	15.774	5.162
58806	12	6.574	19.700	58880	11	13.170	21.338	58954	19	1.956	24.460					59112	8	16.662	5.662
58807	36	6.914	19.127	58881	24	13.669	21.800	58955	19	2.018	24.554					59113	8	17.863	5.854
58808	12	7.460	19.534	58882*	40	13.718	21.648	58956	10	2.259	24.994					59114	8	18.867	5.976
58809	8	7.613	19.810	58883	13	14.068	21.626	58957	15	2.745	24.108					59115	8	19.236	5.217
58810	10	13.356	19.223	58884	12	14.509	21.996	58958	12	3.904	24.964					59116	9	19.324	5.500
58811	10	14.546	19.278	58885	11	14.994	21.016	58959	13	4.705	24.461					59117	11	23.006	5.459
58812	9	14.809	19.326	58886	22	16.269	21.906	58960	13	6.747	24.635					59118	8	25.436	5.790
58813	12	15.720	19.968	58887	16	17.146	21.693	58961	20	6.764	24.650					59119	8	0.522	6.324
58814	12	15.806	19.756	58888	10	17.932	21.285	58962	20	8.524	24.174					59120	8	1.578	6.116
58815	16	17.272	19.894	58889	8	18.936	21.313	58963	16	8.623	24.360					59121*	36	1.976	6.961
58816	10	18.566	19.267	58890	12	20.656	21.478	58964	10	8.821	24.134					59122	8	4.595	6.682
58817	9	19.024	19.314	58891	8	20.816	21.702	58965	36	9.404	24.381					59123	8	8.054	6.393
58818	10	19.657	19.324	58892	12	21.226	21.392	5896											



59133*	41	2.774	7.405	59207	22	19.780	11.130	59281	11	3.936	17.306	59355	8	15.916	22.856	59412	10	23.132	0.232
59134	8	5.808	7.682	59208	8	23.138	11.300	59282	8	4.074	17.018	59356	11	17.483	22.504	59413	25	1.620	1.224
59135	9	6.028	7.598	59209*	24	23.951	11.421	59283	13	4.576	17.915	59357	8	19.270	22.782	59414	9	2.788	1.956
59136	8	7.471	7.888	59210	8	24.662	11.510	59284	14	7.704	17.186	59358	22	20.002	22.608	59415	9	3.444	1.149
59137	8	10.212	7.326	59211	8	24.693	11.256	59285	8	9.814	17.146	59359*	28	1.876	23.444	59416	8	3.899	1.671
59138	14	12.454	7.814	59212	11	4.711	12.013	59286	8	10.896	17.894	59360	16	2.396	23.690	59417	28	4.453	1.283
59139	11	12.584	7.916	59213	11	5.014	12.837	59287*	37	11.459	17.498	59361	8	5.953	23.220	59418	24	5.776	1.275
59140	13	14.160	7.914	59214	18	5.620	12.000	59288	8	13.163	17.886	59362	12	9.539	23.238	59419	26	12.842	1.290
59141	8	15.489	7.216	59215	8	9.034	12.790	59289	8	14.916	17.662	59363	8	10.026	23.022	59420	12	13.690	1.974
59142	11	16.350	7.450	59216	8	9.146	12.095	59290	8	15.654	17.576	59364	10	11.366	23.279	59421	9	13.804	1.050
59143	8	17.539	7.746	59217	8	10.087	12.300	59291	8	15.705	17.931	59365	8	13.096	23.126	59422	13	15.647	1.966
59144*	52	21.094	7.150	59218	8	10.732	12.328	59292	16	18.866	17.631	59366	8	13.219	23.126	59423	18	15.713	1.398
59145*	39	21.192	7.040	59219	20	11.050	12.170	59293	8	19.380	17.286	59367	8	13.836	23.669	59424	10	17.055	1.100
59146	11	21.562	7.260	59220	8	15.765	12.896	59294	16	21.522	17.518	59368	8	16.851	23.792	59425*	42	20.749	1.610
59147	9	21.840	7.442	59221	8	16.694	12.314	59295	13	22.318	17.390	59369	12	17.820	23.338	59426	8	22.706	1.530
59148	12	21.868	7.710	59222	8	21.075	12.380	59296	10	24.856	17.760	59370	8	22.090	23.116	59427	10	23.374	1.319
59149	8	22.075	7.541	59223	16	22.314	12.576	59297	10	25.306	17.908	59371	8	1.282	24.882	59428	8	25.129	1.806
59150	14	22.832	7.863	59224	16	24.935	12.424	59298	8	0.570	18.160	59372	12	3.012	24.394	59429	10	1.446	2.156
59151	13	0.600	8.640	59225	8	25.806	12.060	59299	10	5.386	18.346	59373	8	7.057	24.238	59430	18	2.459	2.957
59152*	26	2.983	8.136	59226	8	0.448	13.074	59300	14	12.973	18.047	59374	8	11.294	24.052	59431	11	2.695	2.069
59153	10	6.092	8.580	59227	11	0.681	13.412	59301	8	15.705	18.763	59375	16	13.132	24.123	59432	8	2.741	2.056
59154*	24	10.756	8.986	59228*	20	0.906	13.416	59302	8	18.346	18.686	59376	8	17.828	24.126	59433	10	4.956	2.921
59155*	26	11.158	8.048	59229	15	1.084	13.056	59303	12	24.953	18.860	59377	8	21.675	24.622	59434	10	7.122	2.585
59156	8	11.466	8.420	59230	8	2.973	13.719	59304	21	25.599	18.115	59378	8	24.470	24.486	59435	10	8.356	2.731
59157	10	15.086	8.350	59231	8	7.762	13.538	59305	12	1.671	19.654	59379	33	2.888	25.923	59436	18	8.620	2.156
59158	23	18.116	8.645	59232	8	7.870	13.740	59306	8	2.126	19.057	59380	9	5.226	25.588	59437	14	9.060	2.409
59159*	24	21.332	8.236	59233	14	8.054	13.353	59307	8	2.478	19.026	59381	27	6.414	25.606	59438	9	9.717	2.567
59160	12	23.432	8.768	59234	11	9.044	13.955	59308*	24	2.576	19.268	59382	11	8.934	25.487	59439	20	11.224	2.813
59161	10	1.259	9.420	59235	8	12.951	13.324	59309	9	4.374	19.486	59383	10	11.651	25.978	59440	14	11.238	2.530
59162	16	4.300	9.905	59236	12	14.139	13.452	59310	8	9.184	19.086	59384	8	11.946	25.544	59441	11	14.300	2.071
59163	9	4.460	9.741	59237	9	20.646	13.792	59311*	38	9.742	19.434	59385	22	12.751	25.111	59442	8	14.470	2.860
59164	12	5.728	9.369	59238	23	21.152	13.704	59312	12	10.880	19.242	59386	8	13.832	25.018	59443	21	15.908	2.620
59165	8	7.860	9.424	59239	10	24.100	13.572	59313	9	13.812	19.738	59387	9	18.650	25.640	59444*	38	15.918	2.702
59166	8	9.766	9.470	59240	8	24.620	13.500	59314	10	13.962	19.666	59388	8	19.202	25.855	59445	34	17.132	2.508
59167	8	10.818	9.975	59241	8	1.428	14.073	59315	8	15.314	19.726	59389	8	20.536	25.218	59446	23	18.004	2.356
59168*	25	12.468	9.032	59242*	22	2.491	14.962	59316	10	15.967	19.964	59390	13	23.854	25.404	59447	8	18.738	2.493
59169	8	13.816	9.794	59243	8	3.592	14.098	59317	9	21.088	19.148	59391	8	24.538	25.200	59448	13	19.802	2.837
59170	12	14.245	9.778	59244	8	5.378	14.182	59318	10	22.033	19.556					59449	15	21.398	2.217
59171	9	17.834	9.185	59245	8	11.740	14.924	59319	12	22.653	19.464					59450	8	24.221	2.108
59172	11	22.336	9.105	59246	8	12.280	14.730	59320	27	23.216	19.582					59451	8	25.947	2.732
59173	11	22.422	9.002	59247*	35	16.805	14.430	59321	8	24.088	19.514					59452	13	0.406	3.933
59174	8	22.482	9.922	59248*	36	16.834	14.411	59322	8	2.868	20.815					59453	10	1.470	3.537
59175	8	22.758	9.910	59249	8	16.923	14.964	59323	8	5.883	20.077					59454	9	2.050	3.695
59176	9	22.788	9.066	59250	11	19.568	14.596	59324	10	6.022	20.684					59455	20	3.758	3.352
59177	8	25.409	9.730	59251*	38	19.866	14.057	59325	15	6.458	20.380					59456	20	4.280	3.671
59178	32	0.235	10.926	59252	19	20.092	14.526	59326	12	8.402	20.144					59457	33	4.600	3.685
59179	20	0.256	10.674	59253	9	20.508	14.124	59327	20	9.645	20.065					59458*	55	5.094	3.756
59180	8	0.324	10.114	59254	8	20.627	14.856	59328	8	9.814	20.006					59459*	45	6.578	3.238
59181	11	2.052	10.942	59255	13	20.688	14.840	59329	8	15.320	20.891					59460	9	7.300	3.726
59182	9	2.421	10.600	59256	15	20.974	14.230	59330*	27	16.713	20.258					59461	12	11.352	3.486
59183	8	3.541	10.240	59257	8	21.810	14.466	59331	8	17.440	20.558					59462	22	12.346	3.535
59184	8	5.718	10.710	59258	18	24.035	14.846	59332	8	17.692	20.246					59463	8	12.522	3.288
59185	20	7.972	10.478	59259	9	25.577	14.367	59333*	35	19.077	20.940					59464	10	13.440	3.244
59186	21	11.120	10.416	59260	20	1.330	15.450	59334	8	10.036	21.197					59465	8	13.816	3.340
59187	8	12.706	10.628	59261*	22	3.838	15.964	59335	8	11.930	21.263					59466	20	14.409	3.862
59188	9	13.977	10.006	59262	11	6.304	15.346	59336	22	13.073	21.951					59467	8	14.514	3.832
59189	8	14.642	10.888	59263	8	7.258	15.064	59337	11	13.500	21.960					59468	8	15.579	3.675
59190	12	18.602	10.982	59264	12	17.696	15.274	59338	8	14.258	21.886					59469	8	16.052	3.547
59191	12	24.082	10.927	59265	21	18.580	15.272	59339	23	15.514	21.478					59470	14	16.840	3.910
59192	12	25.285	10.420	59266	8	23.436	15.790	59340	8	18.348	21.296					59471	38	17.554	3.668
59193	15	0.504	11.106	59267	15	24.761	15.887	59341	10	21.240	21.932					59472	8	21.246	3.268
59194	12	2.314	11.308	59268	31	0.410	16.186	59342	8	6.294	22.636					59473*	46	22.322	3.374
59195	8	5.224	11.792	59269	8	1.382	16.738	59343	8	6.354	22.078					59474	8	22.510	3.021
59196	8	6.050	11.806	59270	8	2.274	16.099	59344	8	9.365	22.872					59475	8	25.416	3.061
59197	10	7.714	11.718	59271	8	3.840	16.630	59345	16	9.588	22.144					59476	12	25.772	3.866
59198	8	7.784	11.360	59272	10	8.926	16.916	59346	9	9.955	22.932					59477	10	0.484	4.115
59199	12	8.304	11.498	59273*	38	15.428													



59486	8	11.168	4.088	59560	11	8.034	7.675	59634	8	12.652	10.010	59708	23	7.100	14.764	59782	15	5.074	17.977
59487	11	11.742	4.892	59561	8	9.220	7.988	59635	8	15.215	10.129	59709	9	8.585	14.743	59783	16	5.714	17.698
59488	8	12.692	4.125	59562	8	9.264	7.762	59636	8	15.480	10.220	59710	10	9.091	14.760	59784	12	5.729	17.044
59489	8	16.074	4.232	59563	16	9.883	7.607	59637	9	17.490	10.410	59711	8	9.330	14.305	59785	10	8.832	17.203
59490	8	16.511	4.634	59564	20	10.218	7.056	59638	8	17.890	10.648	59712	38	11.407	14.175	59786	9	9.356	17.624
59491	10	17.074	4.961	59565	12	10.610	7.360	59639	10	19.600	10.924	59713	8	12.510	14.800	59787	9	11.606	17.586
59492	11	17.502	4.409	59566	10	11.230	7.096	59640	8	19.642	10.270	59714	20	13.360	14.375	59788	9	12.554	17.496
59493	21	22.308	4.517	59567	9	11.326	7.854	59641	8	22.779	10.112	59715	9	13.800	14.760	59789	17	13.646	17.780
59494	10	0.154	5.272	59568	10	11.985	7.388	59642	8	25.666	10.830	59716	17	15.657	14.849	59790	8	13.774	17.150
59495	22	0.584	5.223	59569	12	12.778	7.360	59643	10	25.730	10.701	59717	8	16.433	14.014	59791*	36	15.445	17.350
59496	20	2.460	5.760	59570	8	13.686	7.676	59644	13	0.732	11.015	59718	8	17.105	14.173	59792	25	17.444	17.180
59497	11	2.996	5.540	59571	20	14.970	7.941	59645	9	0.896	11.285	59719	20	18.620	14.799	59793	18	18.725	17.212
59498	8	3.540	5.811	59572	20	15.090	7.405	59646*	37	1.540	11.134	59720	11	23.612	14.814	59794	10	19.786	17.864
59499	8	5.620	5.510	59573	13	19.192	7.106	59647	15	2.245	11.220	59721	14	25.656	14.475	59795	10	23.026	17.030
59500	9	6.209	5.104	59574	12	21.183	7.968	59648	11	3.328	11.842	59722	17	1.047	15.470	59796	10	0.090	18.686
59501	11	6.242	5.250	59575	25	0.014	8.742	59649	17	3.385	11.758	59723	22	2.362	15.560	59797	11	2.530	18.415
59502	17	6.874	5.736	59576	20	0.376	8.802	59650	13	5.276	11.726	59724	8	3.056	15.120	59798	20	2.564	18.508
59503	12	7.764	5.908	59577	21	1.015	8.504	59651	22	5.548	11.474	59725	9	3.826	15.612	59799	8	2.778	18.865
59504	8	9.158	5.082	59578	10	1.584	8.218	59652	10	10.700	11.388	59726	8	4.624	15.466	59800	9	3.012	18.752
59505	21	9.507	5.108	59579	12	1.960	8.185	59653	14	11.230	11.866	59727	9	4.901	15.292	59801	25	4.728	18.768
59506	10	9.510	5.098	59580	9	3.166	8.988	59654	8	14.371	11.824	59728	21	5.022	15.730	59802	8	5.237	18.370
59507	9	12.100	5.214	59581	12	4.372	8.795	59655	14	15.690	11.042	59729	11	6.354	15.096	59803	8	6.272	18.055
59508	8	12.706	5.276	59582	40	4.790	8.643	59656	10	15.917	11.970	59730	12	7.554	15.720	59804	13	11.115	18.566
59509	9	13.400	5.571	59583	10	6.113	8.904	59657	8	17.118	11.676	59731	9	8.110	15.198	59805	12	11.262	18.483
59510	12	14.485	5.443	59584	8	11.400	8.848	59658	9	17.938	11.018	59732	10	9.238	15.325	59806	10	11.486	18.944
59511	11	14.960	5.850	59585	9	11.518	8.788	59659	12	18.674	11.580	59733	8	9.760	15.253	59807	8	11.878	18.080
59512	9	14.966	5.194	59586	9	12.420	8.194	59660	24	19.920	11.954	59734	9	10.808	15.906	59808	8	12.008	18.558
59513	8	14.977	5.570	59587	10	12.685	8.550	59661	20	21.240	11.688	59735	8	11.121	15.439	59809	17	14.052	18.098
59514*	40	15.040	5.980	59588	11	13.974	8.172	59662	23	22.965	11.874	59736	8	11.586	15.746	59810	17	14.598	18.578
59515	8	15.866	5.428	59589	11	14.550	8.946	59663	8	0.858	12.370	59737	8	12.032	15.404	59811	9	16.466	18.745
59516	8	17.525	5.203	59590	22	17.700	8.970	59664	10	0.898	12.625	59738	10	12.033	15.464	59812	12	17.232	18.983
59517	8	19.089	5.810	59591	8	18.024	8.088	59665	12	1.101	12.650	59739	9	12.128	15.068	59813	8	17.670	18.290
59518*	40	20.740	5.490	59592	29	24.650	8.675	59666	22	2.521	12.125	59740	8	14.094	15.026	59814	9	18.016	18.487
59519	9	24.287	5.718	59593	12	25.020	8.597	59667	12	2.921	12.054	59741	10	14.164	15.975	59815	8	18.408	18.772
59520	12	1.890	6.240	59594	9	25.473	8.417	59668	19	4.290	12.576	59742	8	16.250	15.940	59816	8	18.836	18.718
59521	15	2.025	6.304	59595	10	25.835	8.078	59669	11	5.668	12.300	59743	17	18.816	15.900	59817	10	19.075	18.572
59522	15	2.765	6.575	59596	13	0.076	9.655	59670	15	9.948	12.445	59744	11	20.778	15.281	59818	10	19.110	18.514
59523	11	3.197	6.319	59597	11	0.350	9.639	59671	14	12.550	12.400	59745	8	21.350	15.570	59819	11	19.489	18.280
59524*	30	4.382	6.115	59598	8	0.728	9.256	59672	9	13.048	12.190	59746	9	22.255	15.186	59820	9	20.621	18.515
59525*	33	4.414	6.312	59599	11	2.050	9.949	59673	14	13.300	12.984	59747	13	23.938	15.465	59821	18	22.324	18.898
59526	9	4.445	6.720	59600	14	2.982	9.450	59674	9	14.297	12.488	59748	27	0.200	16.480	59822	11	22.684	18.044
59527	8	5.916	6.371	59601	10	5.026	9.284	59675	9	17.425	12.368	59749	8	1.575	16.699	59823	8	23.215	18.606
59528	11	7.468	6.952	59602*	37	5.400	9.920	59676	8	18.836	12.469	59750	10	3.972	16.385	59824	12	23.454	18.110
59529	8	8.518	6.754	59603	10	5.520	9.858	59677	15	20.445	12.612	59751	20	5.250	16.072	59825	8	23.552	18.630
59530	11	8.891	6.510	59604	10	6.672	9.659	59678	11	22.310	12.870	59752	10	5.476	16.740	59826	28	24.698	18.960
59531	8	9.138	6.465	59605	8	7.108	9.401	59679	20	24.979	12.045	59753	15	7.025	16.475	59827	20	0.284	19.120
59532	8	9.386	6.782	59606	13	8.396	9.388	59680	20	1.697	13.266	59754	10	8.920	16.530	59828	36	0.840	19.230
59533	24	9.980	6.384	59607	10	8.585	9.779	59681	11	2.214	13.194	59755	9	9.655	16.855	59829	13	1.710	19.162
59534	10	11.924	6.714	59608	14	9.171	9.690	59682	8	3.998	13.656	59756	10	9.905	16.950	59830	10	2.004	19.026
59535	8	12.106	6.489	59609	10	11.008	9.505	59683	11	4.007	13.926	59757	10	11.010	16.682	59831	10	2.049	19.719
59536	9	12.114	6.505	59610	10	11.200	9.557	59684	24	6.071	13.954	59758	20	11.046	16.220	59832	8	2.715	19.748
59537	9	12.286	6.165	59611	8	12.294	9.925	59685	10	6.550	13.723	59759*	40	11.410	16.148	59833	9	3.262	19.446
59538	10	13.864	6.680	59612	8	13.292	9.204	59686	13	7.068	13.937	59760	10	11.498	16.910	59834	23	5.222	19.745
59539	11	14.098	6.666	59613	8	13.388	9.648	59687	8	7.162	13.556	59761	9	11.856	16.814	59835	8	5.750	19.374
59540	24	14.448	6.075	59614	8	13.558	9.266	59688	8	8.782	13.684	59762	13	13.307	16.228	59836	8	6.894	19.722
59541	10	14.575	6.666	59615	8	16.996	9.214	59689	10	8.848	13.096	59763	11	14.172	16.278	59837	15	7.300	19.498
59542	10	15.568	6.738	59616*	41	18.884	9.459	59690	11	9.014	13.344	59764*	56	16.682	16.159	59838	11	8.413	19.138
59543	8	15.756	6.764	59617	10	19.128	9.045	59691	8	12.186	13.192	59765	9	17.950	16.000	59839	20	8.602	19.636
59544	20	16.088	6.265	59618	9	21.344	9.232	59692	9	12.697	13.314	59766*	78	18.146	16.068	59840*	62	9.295	19.888
59545	9	18.169	6.770	59619	20	1.668	10.645	59693	13	14.083	13.610	59767	9	18.570	16.318	59841	9	9.525	19.568
59546	10	18.450	6.919	59620	8	2.000	10.570	59694	12	15.375	13.859	59768	9	18.940	16.523	59842	8	9.895	19.379
59547	8	18.491	6.683	59621	17	2.274	10.968	59695	15	15.390	13.206	59769	24	18.950	16.720	59843	13	10.318	19.420
59548	17	18.850	6.256	59622	21	2.860	10.136	59696	8	16.200	13.848	59770	26	20.555	16.920	59844	9	13.894	19.699
59549	8																		



59856	16	25.696	19.166	59930	10	1.262	23.780	<div>R.A. 19<sup>h</sup> 48<sup>m</sup></div> <div>Plate 751 ; 1916 Aug. 30</div> <div>Provisional Constants.</div> <div>A B C</div> <div>−0.02563 +.00621 +.2328</div> <div>D E F</div> <div>−0.00602 −.02571 −.1796</div> <div>Mag.=16.6−1.09√d</div>	60106	11	11.513	7.192	60180	33	10.646	15.432
59857	9	1.315	20.296	59931	8	2.164	23.042		60107	12	14.220	7.306	60181	8	12.091	15.684
59858	8	1.578	20.053	59932	10	2.294	23.234		60108	30	2.461	8.807	60182	10	15.585	15.794
59859	10	1.881	20.913	59933	8	2.738	23.453		60109	8	2.836	8.722	60183	10	18.161	15.166
59860	10	2.900	20.182	59934	8	3.524	23.219		60110	8	3.644	8.194	60184	8	19.397	15.632
59861	8	3.888	20.796	59935	10	4.151	23.140		60111	8	13.174	8.246	60185	10	19.906	15.744
59862	8	4.380	20.534	59936	9	5.175	23.898		60112	8	14.445	8.959	60186	8	21.727	15.710
59863	20	4.582	20.730	59937	8	5.364	23.184		60113	11	16.029	8.499	60187	8	22.235	15.276
59864*	31	10.252	20.295	59938	10	5.809	23.706		60114*	38	20.442	8.139	60188	20	23.893	15.913
59865*	37	11.316	20.935	59939	15	6.926	23.725		60115	28	21.843	8.210	60189	20	0.854	16.406
59866	10	12.001	20.902	59940	8	8.142	23.130	60116	9	22.294	8.028	60190	11	6.446	16.635	
59867	8	14.124	20.063	59941	8	8.443	23.886	60117	33	23.293	8.572	60191	10	11.244	16.734	
59868	13	14.577	20.642	59942	8	8.845	23.109	60118	29	23.626	8.814	60192	8	14.961	16.760	
59869	8	17.425	20.204	59943	15	8.998	23.500	60119	8	5.044	9.880	60193*	62	16.316	16.060	
59870*	60	19.040	20.875	59944	8	9.580	23.620	60120	10	6.484	9.798	60194	8	18.194	16.200	
59871	25	19.143	20.312	59945	9	10.320	23.754	60121	40	8.198	9.642	60195	37	19.234	16.770	
59872	9	20.164	20.007	59946	20	11.200	23.448	60122	10	9.126	9.079	60196*	46	23.462	16.497	
59873	9	20.870	20.229	59947	10	14.726	23.712	60123	8	12.046	9.966	60197	27	23.732	16.032	
59874*	40	22.664	20.271	59948	9	15.250	23.726	60124	11	20.182	9.186	60198	11	5.776	17.118	
59875	12	25.511	20.570	59949	10	16.511	23.660	60125	10	20.482	9.224	60199	8	7.104	17.206	
59876	10	1.296	21.155	59950	10	17.308	23.980	60126	30	23.700	9.534	60200	10	16.450	17.342	
59877	9	1.438	21.559	59951	9	20.630	23.610	60127	10	24.424	9.283	60201	8	16.764	17.862	
59878	8	3.065	21.093	59952	8	23.284	23.945	60128	15	6.927	10.086	60202	10	17.746	17.206	
59879	10	3.066	21.042	59953	10	0.350	24.630	60129	8	11.726	10.233	60203	8	0.614	18.201	
59880	9	3.173	21.930	59954	12	2.110	24.090	60130	8	18.872	10.886	60204	8	1.147	18.754	
59881	13	5.290	21.058	59955	8	4.501	24.208	60131	16	21.578	10.452	60205	10	1.382	18.254	
59882	10	6.095	21.060	59956	10	4.662	24.665	60132*	60	21.632	10.994	60206	10	5.110	18.934	
59883	15	7.140	21.444	59957	9	5.276	24.360	60133	10	25.137	10.566	60207*	45	7.455	18.571	
59884	20	10.588	21.570	59958	9	6.908	24.168	60134	8	5.747	11.044	60208*	31	8.299	18.834	
59885	10	10.974	21.616	59959	21	7.132	24.740	60135	8	12.208	11.014	60209*	31	8.666	18.256	
59886	8	12.718	21.853	59960	8	7.754	24.184	60136	10	12.838	11.288	60210	10	12.405	18.082	
59887	9	13.059	21.604	59961	15	7.988	24.540	60137*	46	13.226	11.304	60211	12	12.559	18.199	
59888	8	15.180	21.366	59962	22	9.206	24.781	60138	8	16.512	11.724	60212	10	13.564	18.573	
59889	10	15.641	21.078	59963	12	9.730	24.950	60139	12	19.726	11.414	60213	13	14.444	18.796	
59890	21	16.072	21.749	59964	20	9.786	24.680	60140	25	23.004	11.409	60214	15	23.544	18.326	
59891	10	17.890	21.009	59965	8	11.052	24.010	60141	8	23.451	11.787	60215	10	23.662	18.804	
59892	8	18.020	21.449	59966	15	11.340	24.680	60142	23	0.817	12.024	60216	8	23.840	18.196	
59893	9	18.330	21.493	59967	31	12.244	24.009	60143	19	2.832	12.174	60217	8	25.902	18.574	
59894	12	18.458	21.403	59968	10	12.710	24.538	60144	31	8.266	12.746	60218	8	0.136	19.176	
59895	8	21.564	21.938	59969	10	13.048	24.270	60145	22	8.850	12.586	60219	12	0.264	19.056	
59896	8	21.920	21.705	59970	8	13.290	24.400	60146	8	13.435	12.156	60220	34	2.636	19.088	
59897	8	22.345	21.277	59971	30	13.906	24.746	60147	25	15.369	12.874	60221	11	3.636	19.284	
59898	19	25.066	21.318	59972	8	14.540	24.760	60148*	16	17.158	12.784	60222	10	3.956	19.562	
59899	12	25.101	21.604	59973	20	16.438	24.042	60149	10	22.598	12.225	60223	9	4.044	19.692	
59900	9	0.845	22.206	59974	12	17.298	24.644	60150	8	0.176	13.031	60224	24	9.956	19.606	
59901	35	4.820	22.912	59975	13	17.929	24.400	60151	8	1.645	13.326	60225	13	11.022	19.265	
59902	8	6.701	22.525	59976	8	18.658	24.815	60152	9	3.896	13.885	60226	24	11.875	19.906	
59903	10	6.984	22.048	59977	8	19.582	24.294	60153	12	4.002	13.175	60227	9	14.375	19.770	
59904	14	7.447	22.766	59978	20	20.896	24.988	60154	26	6.660	13.454	60228	12	14.498	19.414	
59905	12	8.010	22.364	59979	18	21.002	24.453	60155	10	10.536	13.298	60229	8	14.576	19.645	
59906	16	8.190	22.720	59980	9	21.322	24.524	60156	8	11.920	13.300	60230	8	18.752	19.332	
59907	9	8.453	22.550	59981	8	22.924	24.380	60157	10	12.235	13.754	60231	10	21.685	19.540	
59908	10	8.690	22.914	59982	20	23.620	24.264	60158	8	12.287	13.724	60232	10	0.454	20.054	
59909	19	9.408	22.170	59983	23	1.500	25.009	60159	8	14.432	13.802	60233	46	0.616	20.424	
59910	20	10.250	22.900	59984	10	1.918	25.938	60160	10	1.500	14.955	60234	11	3.470	20.685	
59911	10	10.760	22.780	59985	8	4.695	25.396	60161	10	3.541	14.595	60235*	37	8.422	20.086	
59912	10	12.080	22.203	59986	15	4.700	25.738	60162	8	5.122	14.319	60236	36	13.896	20.758	
59913	9	12.594	22.320	59987	8	4.964	25.786	60163	27	7.065	14.222	60237*	53	14.124	20.288	
59914	8	13.380	22.135	59988	20	5.076	25.053	60164	8	7.634	14.746	60238	8	16.284	20.165	
59915	23	13.420	22.410	59989	8	5.552	25.142	60165	8	8.445	14.322	60239	9	18.374	20.814	
59916	14	13.723	22.090	59990	14	7.300	25.385									



60254	14	18.920	21.376	60352	8	8.076	0.542	60426*	23	21.612	7.848	60500	11	8.412	18.842
60255	40	22.294	21.144	60353*	31	20.150	0.821	60427	10	12.294	8.124	60501	10	10.737	18.340
60256	12	22.456	21.335	60354*	39	20.168	0.406	60428	8	15.703	8.156	60502	16	11.049	18.329
60257	10	23.194	21.147	60355*	38	23.185	0.272	60429	8	17.762	8.664	60503	14	19.336	18.402
60258	26	24.285	21.615	60356	12	2.587	1.051	60430	8	21.924	8.109	60504	9	0.980	19.408
60259	23	25.051	21.482	60357*	23	3.648	1.335	60431*	34	23.022	8.684	60505	10	19.049	19.024
60260	9	0.512	22.288	60358	10	6.858	1.048	60432	17	0.470	9.100	60506	10	19.544	19.834
60261	8	0.755	22.236	60359	10	7.188	1.158	60433	11	0.812	9.341	60507	8	25.574	19.174
60262	8	3.502	22.922	60360	8	7.713	1.262	60434	9	1.618	9.802	60508	8	3.020	20.750
60263	8	3.776	22.385	60361	8	9.226	1.802	60435	8	2.950	9.813	60509	10	4.258	20.532
60264	8	5.286	22.406	60362*	30	10.070	1.012	60436	10	4.588	9.984	60510*	15	10.928	20.862
60265	8	7.059	22.584	60363	8	14.512	1.716	60437	8	11.443	9.150	60511	8	16.290	20.088
60266	14	8.101	22.492	60364	10	20.459	1.034	60438	10	14.435	9.160	60512*	36	16.586	20.159
60267	28	9.864	22.915	60365	8	20.808	1.766	60439*	19	19.378	9.690	60513	10	23.280	20.662
60268	8	15.341	22.549	60366	8	20.836	1.884	60440*	13	20.636	9.929	60514	8	0.542	21.778
60269	9	17.238	22.584	60367*	39	24.270	1.388	60441	8	21.618	9.321	60515	13	1.274	21.476
60270*	40	18.252	22.025	60368	9	24.575	1.794	60442	14	0.896	10.066	60516	13	4.448	21.856
60271	12	23.736	22.198	60369	15	1.800	2.848	60443	10	4.992	10.116	60517	11	12.168	21.870
60272	8	24.712	22.404	60370	9	3.868	2.714	60444	14	5.386	10.563	60518	8	16.660	21.331
60273	8	7.581	23.516	60371	8	6.404	2.294	60445	10	6.731	10.920	60519	11	16.943	21.852
60274	12	7.946	23.046	60372	8	7.805	2.800	60446*	26	11.273	10.940	60520*	19	20.164	21.520
60275	15	8.464	23.197	60373*	48	9.249	2.928	60447	24	14.586	10.158	60521	8	22.425	21.680
60276	8	8.664	23.402	60374*	18	9.522	2.880	60448	11	20.672	10.875	60522	10	23.922	21.750
60277	8	9.020	23.725	60375	8	9.547	2.194	60449	9	20.878	10.484	60523	12	25.908	21.754
60278	10	13.720	23.766	60376	8	9.862	2.247	60450	12	0.220	11.966	60524	10	1.101	22.829
60279	9	14.242	23.044	60377	8	14.045	2.368	60451	10	2.358	11.084	60525	12	1.650	22.235
60280	8	22.337	23.626	60378*	30	15.076	2.784	60452*	20	18.974	11.726	60526	16	2.416	22.088
60281	8	23.544	23.123	60379	8	22.830	2.504	60453	11	20.483	11.330	60527	12	6.780	22.969
60282	17	1.624	24.408	60380	9	0.372	3.194	60454	9	21.124	11.665	60528	14	8.269	22.207
60283	8	5.766	24.836	60381	8	0.570	3.926	60455	12	22.115	11.364	60529*	47	13.116	22.545
60284	9	8.364	24.926	60382	12	1.362	3.764	60456	11	10.346	12.132	60530	8	17.263	22.073
60285	8	8.465	24.325	60383*	47	2.718	3.919	60457	13	23.804	12.766	60531	10	20.126	22.771
60286	10	8.468	24.084	60384	11	3.818	3.944	60458	10	7.420	13.238	60532	10	20.210	22.634
60287	10	10.165	24.084	60385	10	14.949	3.836	60459	8	10.618	13.641	60533	12	24.006	22.831
60288	8	10.254	24.238	60386	8	19.201	3.078	60460	8	16.694	13.083	60534	8	25.276	22.320
60289	8	13.104	24.167	60387	8	19.878	3.691	60461*	30	18.226	13.088	60535	8	4.640	23.210
60290	9	13.184	24.044	60388*	26	20.164	3.267	60462	8	20.724	13.583	60536*	18	6.665	23.430
60291	8	14.705	24.734	60389	19	22.138	3.164	60463	10	21.528	13.131	60537	12	6.704	23.468
60292*	57	21.456	24.190	60390	10	2.381	4.245	60464*	26	24.248	13.416	60538	8	7.059	23.237
60293	20	25.658	24.136	60391*	29	5.580	4.668	60465	12	3.063	14.541	60539	9	7.112	23.974
60294	41	2.954	25.532	60392	8	8.248	4.693	60466	8	5.156	14.802	60540	8	11.326	23.304
60295	9	4.874	25.840	60393	10	15.742	4.753	60467*	52	12.180	14.492	60541	8	11.370	23.867
60296	8	11.140	25.765	60394	10	15.844	4.981	60468	12	12.344	14.092	60542	17	12.269	23.781
60297	10	11.461	25.796	60395	8	15.952	4.891	60469	12	20.136	14.306	60543	9	12.881	23.955
60298	8	11.490	25.844	60396	8	18.211	4.670	60470	14	22.607	14.772	60544	15	13.686	23.494
60299	8	13.634	25.916	60397*	30	21.138	4.570	60471	12	25.337	14.729	60545	8	14.529	23.806
60300	11	16.652	25.633	60398	13	25.932	4.624	60472	12	4.650	15.895	60546	10	15.888	23.057
60301	9	19.807	25.336	60399	8	0.972	5.199	60473	10	20.315	15.498	60547	11	19.349	23.942
60302	12	20.158	25.118	60400	10	1.743	5.550	60474	9	21.637	15.258	60548	11	20.254	23.327
60303	8	20.204	25.332	60401	8	2.759	5.896	60475	14	1.015	16.614	60549	12	3.070	24.762
60304	16	24.100	25.544	60402	11	4.197	5.955	60476	10	1.176	16.492	60550	9	4.212	24.827
				60403	8	6.130	5.744	60477	10	3.600	16.700	60551	9	6.886	24.608
				60404	10	8.338	5.946	60478	10	5.026	16.788	60552	13	11.394	24.859
				60405	8	11.736	5.863	60479	12	6.537	16.776	60553	8	15.278	24.130
				60406	10	15.196	5.468	60480	10	7.876	16.347	60554*	36	23.656	24.340
				60407*	28	15.780	5.026	60481	12	9.286	16.886	60555	8	6.104	25.804
				60408	8	17.226	5.438	60482	8	9.586	16.814	60556	17	6.234	25.934
				60409	12	18.622	5.854	60483	10	11.805	16.618	60557	14	8.940	25.080
				60410	9	2.806	6.494	60484	9	12.835	16.795	60558	14	21.824	25.318
				60411*	23	3.110	6.424	60485	8	13.118	16.585				
				60412	8	5.374	6.723	60486	8	19.403	16.563				
				60413	9	6.341	6.058	60487	9	22.222	16.284				
				60414	10	9.426	6.316	60488	10	24.320	16.622				
				60415	8	9.750	6.030	60489	10	24.321	16.634				
				60416	8	11.524	6.708	60490*	29	0.748	17.086				
				60417	10	19.528	6.058	60491	12	7.533	17.960				
				60418	9	20.162	6.322	60492	15	9.856	17.167				
				60419	10	23.504	6.266	60493	12	11.973	17.665				
				60420	8	2.975	7.118	60494	16	12.570	17.742				
				60421	11	7.677	7.859	60495	10	12.790	17.006				
				60422	8	10.150	7.304	60496	12	16.110	17.559				
				60423	10	10.278	7.138	60497	8	20.326	17.812				
				60424	15	18.074	7.883	60498	11	20.794	17.556				
				60425	8	19.971	7.029	60499	11	0.854	18.928				

R.A. 20<sup>h</sup> 4<sup>m</sup>

Plate 752; 1916 Aug. 30.

Provisional Constants.

A B C  
 --02574 +00352 +1379

D E F  
 --00329 --02584 --0926

Mag. = 16.7 - 1.09√d

No.	d	x	y
60600*	31	0.836	0.248
60601*	46	9.682	0.978
60602	11	10.154	0.494
60603	10	21.035	0.536
60604*	52	1.922	1.354
60605	18	5.809	2.636
60606	20	9.496	2.311
60607	12	14.494	2.033
60608*	28	17.828	2.714
60609	18	18.272	2.749
60610	11	25.134	2.374
60611	22	5.430	3.344
60612*	39	7.918	3.229
60613*	39	11.224	3.421
60614	29	12.608	3.349
60615	10	16.512	3.973
60616	9	20.454	3.277
60617	15	23.136	3.321
60618	20	25.485	3.142
60619	31	3.585	4.556
60620	12	10.475	4.096
60621	21	11.347	4.126
60622	11	11.874	4.020
60623	8	21.104	4.162
60624	8	22.870	4.741



60656	21	21.220	8.856	60730	9	15.364	15.050	60804	8	7.682	22.270	60856	33	11.080	0.384	60930	9	25.927	3.754
60657	10	22.110	8.669	60731*	48	16.900	15.616	60805	8	8.366	22.614	60857	9	11.824	0.628	60931	12	0.482	4.797
60658	26	22.624	8.901	60732	19	22.689	15.370	60806	8	8.906	22.559	60858	14	13.886	0.770	60932	31	0.690	4.289
60659	11	2.764	9.470	60733*	44	23.674	15.643	60807	8	12.200	22.134	60859	8	16.094	0.230	60933	16	1.431	4.862
60660	30	4.277	9.677	60734	8	23.931	15.320	60808	8	12.589	22.975	60860	8	17.707	0.669	60934	8	3.053	4.896
60661	16	6.000	9.175	60735	23	24.174	15.402	60809	27	15.930	22.527	60861	12	22.762	0.646	60935*	42	3.204	4.526
60662	8	6.566	9.932	60736	26	2.039	16.469	60810	11	18.114	22.816	60862	8	22.875	0.253	60936	11	3.898	4.744
60663	8	9.888	9.696	60737	8	4.280	16.016	60811	13	18.855	22.049	60863	12	24.128	0.570	60937	8	5.764	4.426
60664	17	12.089	9.302	60738	28	4.308	16.438	60812	33	20.636	22.429	60864	33	24.778	0.196	60938	17	8.168	4.248
60665	31	14.360	9.514	60739	10	8.992	16.940	60813	24	22.164	22.546	60865	10	24.972	0.277	60939	11	9.814	4.861
60666	20	14.944	9.828	60740	8	9.748	16.246	60814	40	25.422	22.081	60866	60	25.747	0.163	60940	8	10.479	4.025
60667	15	15.847	9.703	60741	12	12.614	16.752	60815	8	3.666	23.624	60867	17	0.798	1.164	60941	31	12.212	4.172
60668	10	18.076	9.512	60742	13	13.038	16.285	60816	8	6.044	23.230	60868	10	3.592	1.026	60942	23	13.700	4.442
60669	15	24.072	9.861	60743	27	14.860	16.068	60817	10	6.193	23.691	60869	10	3.815	1.344	60943	9	14.377	4.240
60670	10	7.933	10.900	60744	31	15.436	16.820	60818	8	11.236	23.776	60870	10	5.436	1.198	60944	13	17.142	4.669
60671	30	9.436	10.256	60745*	25	20.075	16.405	60819	10	13.624	23.716	60871	26	5.442	1.718	60945	16	18.520	4.993
60672	10	9.995	10.570	60746	10	20.300	16.264	60820	8	18.192	23.356	60872	13	5.796	1.526	60946	11	19.492	4.271
60673	32	11.616	10.304	60747	10	23.051	16.115	60821	12	22.275	23.312	60873	14	5.987	1.635	60947	14	21.712	4.466
60674	26	17.806	10.748	60748	36	24.586	16.795	60822*	63	24.746	23.970	60874	8	6.683	1.700	60948	8	22.034	4.405
60675	9	21.224	10.094	60749	8	0.466	17.974	60823	9	25.272	23.517	60875	17	9.608	1.164	60949	12	22.257	4.590
60676	8	23.921	10.734	60750	8	3.951	17.799	60824*	58	1.413	24.124	60876	8	9.874	1.483	60950	15	23.302	4.560
60677	8	25.247	10.514	60751	21	10.899	17.698	60825	31	7.070	24.169	60877	9	9.936	1.812	60951	18	23.901	4.354
60678	8	6.105	11.588	60752	24	12.423	17.466	60826	9	8.130	24.766	60878	25	10.637	1.108	60952	11	25.076	4.319
60679	8	9.800	11.730	60753*	69	13.348	17.222	60827	8	8.604	24.055	60879	10	11.936	1.522	60953	8	25.372	4.182
60680	11	11.765	11.542	60754	16	16.041	17.912	60828	8	10.031	24.555	60880	21	12.092	1.728	60954	12	25.790	4.483
60681	18	12.215	11.212	60755	8	17.278	17.166	60829	24	12.898	24.211	60881	32	12.402	1.830	60955	11	0.096	5.926
60682	12	13.437	11.493	60756	12	19.842	17.265	60830	8	17.288	24.013	60882	23	14.132	1.868	60956	23	0.261	5.290
60683	10	13.752	11.898	60757	21	20.700	17.302	60831	24	20.174	24.974	60883	11	14.760	1.572	60957	13	0.690	5.421
60684	37	21.405	11.297	60758	8	21.770	17.664	60832	10	20.783	24.374	60884	8	19.227	1.858	60958	16	2.813	5.008
60685	40	25.838	11.488	60759	22	21.844	17.698	60833	14	21.232	24.250	60885	8	22.842	1.418	60959*	46	5.702	5.864
60686	18	25.856	11.516	60760	11	22.995	17.984	60834	29	1.016	25.867	60886	23	24.308	1.563	60960	13	6.056	5.394
60687	18	1.512	12.641	60761	36	25.567	17.248	60835	18	1.286	25.838	60887	8	24.652	1.731	60961	8	6.108	5.743
60688	9	5.265	12.276	60762	8	1.855	18.360	60836	11	2.866	25.896	60888	9	25.068	1.713	60962	23	7.232	5.300
60689	8	6.086	12.853	60763	8	2.070	18.922	60837	27	4.734	25.144	60889	14	0.338	2.293	60963	10	7.976	5.386
60690	-8	6.284	12.070	60764	8	3.293	18.988	60838	38	5.202	25.612	60890	19	0.572	2.071	60964	11	11.748	5.500
60691	9	6.924	12.113	60765	19	4.754	18.677	60839	26	9.686	25.158	60891	24	2.722	2.405	60965	11	11.970	5.896
60692	33	7.173	12.600	60766	23	5.274	18.491	60840	22	11.665	25.084	60892	9	3.628	2.626	60966	8	12.689	5.627
60693	8	10.528	12.844	60767*	77	5.450	18.216	60841	8	12.354	25.537	60893	11	5.813	2.095	60967	9	13.372	5.095
60694	8	13.964	12.872	60768	20	17.675	18.276	60842	8	13.635	25.252	60894	11	6.807	2.879	60968*	31	14.996	5.320
60695	26	14.625	12.384	60769	16	23.511	18.646	60843	9	14.135	25.453	60895*	51	6.846	2.724	60969	19	17.772	5.585
60696	25	18.318	12.750	60770	9	24.038	18.166	60844	17	15.365	25.849	60896	8	6.966	2.169	60970	9	17.826	5.974
60697	14	21.784	12.601	60771	10	24.346	18.040	60844	38	17.180	25.600	60897*	66	12.298	2.403	60971	8	19.106	5.778
60698	11	24.126	12.366	60772	22	5.020	19.478	60845	8	21.782	25.923	60898*	32	13.014	2.469	60972	42	21.552	5.137
60699*	60	24.856	12.176	60773	9	12.784	19.934					60899	10	13.347	2.610	60973	9	22.925	5.834
60700*	47	1.954	13.288	60774	8	13.407	19.762					60900	13	14.394	2.295	60974	32	23.084	5.276
60701	10	7.397	13.448	60775	27	19.528	19.954					60901	9	14.829	2.728	60975	8	23.424	5.956
60702	12	7.604	13.727	60776*	32	22.325	19.916					60902	17	15.728	2.401	60976	9	23.615	5.246
60703	39	8.102	13.880	60777	8	22.686	19.997					60903*	43	16.527	2.795	60977	8	23.664	5.488
60704	23	9.250	13.961	60778	22	1.025	20.476					60904	30	16.638	2.426	60978	12	24.592	5.737
60705	35	10.200	13.592	60779	14	5.644	20.736					60905	11	16.968	2.179	60979	9	25.766	5.417
60706	30	13.884	13.318	60780	38	7.356	20.800					60906	17	18.991	2.092	60980	42	25.794	5.888
60707	13	15.240	13.746	60781	8	8.170	20.616					60907	11	21.652	2.665	60981	22	1.318	6.202
60708	31	15.828	13.238	60782	28	9.429	20.250					60908	11	24.149	2.893	60982	23	2.894	6.822
60709	8	16.484	13.650	60783	27	9.486	20.616					60909	14	25.026	2.705	60983	32	4.856	6.825
60710	8	17.964	13.529	60784	13	9.635	20.100					60910	9	25.293	2.295	60984	10	5.823	6.066
60711	8	21.956	13.244	60785	9	16.630	20.984					60911	18	25.953	2.199	60985	8	6.082	6.721
60712	17	22.479	13.584	60786	9	18.450	20.061					60912	19	0.734	3.374	60986	11	7.087	6.756
60713	19	22.958	13.306	60787	27	21.730	20.043					60913	13	3.079	3.176	60987	8	7.432	6.198
60714	33	0.332	14.637	60788	10	23.660	20.900					60914	9	3.652	3.218	60988	12	8.416	6.566
60715	9	0.504	14.421	60789	8	24.014	20.127					60915	12	5.792	3.279	60989	21	8.552	6.328
60716	23	3.041	14.582	60790	25	1.666	21.554					60916	8	7.386	3.872	60990	15	8.784	6.804
60717	10	9.395	14.580	60791	22	3.638	21.548					60917	12	7.638	3.885	60991	22	10.220	6.764
60718	8	13.506	14.094	60792	10	6.636	21.672					60918	16	11.694	3.470	60992	11	10.683	6.590
60719	27	14.774	14.566	60793	17	7.432	21.200					60919	21	14.786	3.205	60993*	36	12.107	6.683
60720	15	15.570	14.986	60794	24	13.129	21.782					60920	8	16.321	3.232	60994	12	12.672	6.772
60721	8	15.828	14.638	60795	22	15.186	21.776												



61004	24	24.991	6.035	61078	10	3.514	11.273	61152	8	13.080	15.054	61226	42	24.803	19.166	61300	8	18.083	24.400
61005	29	1.963	7.412	61079	20	3.526	11.542	61153	13	14.239	15.716	61227	8	0.432	20.050	61301	17	18.448	24.672
61006	14	3.365	7.602	61080	11	3.878	11.987	61154	8	14.372	15.292	61228	12	1.412	20.947	61302	18	19.138	24.068
61007	12	5.143	7.493	61081	19	6.792	11.660	61155	14	19.477	15.010	61229	10	1.760	20.170	61303	17	20.066	24.158
61008	18	6.357	7.408	61082	12	10.774	11.173	61156	23	20.292	15.986	61230	13	4.569	20.413	61304	13	23.122	24.417
61009	16	6.435	7.050	61083	9	13.416	11.106	61157	10	20.764	15.352	61231	21	5.356	20.240	61305	8	1.232	25.361
61010	9	6.536	7.322	61084	10	14.664	11.030	61158	11	24.254	15.257	61232	10	8.278	20.686	61306	8	3.718	25.569
61011*	7	8.330	7.857	61085	8	15.442	11.972	61159	11	0.764	16.167	61233	8	8.562	20.600	61307	9	4.112	25.664
61012	8	13.226	7.282	61086	8	16.330	11.244	61160	29	2.302	16.834	61234	25	8.636	20.788	61308	13	5.568	25.810
61013*	34	13.738	7.467	61087	8	16.398	11.702	61161	13	5.974	16.452	61235	10	14.174	20.876	61309	9	7.378	25.904
61014	12	15.386	7.156	61088	8	17.146	11.602	61162	11	6.164	16.416	61236	8	14.202	20.411	61310	8	7.526	25.762
61015	18	19.854	7.027	61089	11	19.594	11.736	61163	8	6.328	16.420	61237	20	14.968	20.962	61311	12	9.418	25.446
61016	8	20.140	7.372	61090	25	21.368	11.494	61164	25	8.283	16.982	61238	9	15.252	20.297	61312	14	9.924	25.394
61017	11	20.896	7.840	61091	20	23.690	11.334	61165	8	11.866	16.460	61239	23	17.262	20.118	61313	14	10.233	25.732
61018	14	21.404	7.702	61092	8	24.481	11.208	61166	10	15.662	16.622	61240	8	20.150	20.379	61314	11	12.056	25.596
61019	14	21.763	7.326	61093	8	0.698	12.167	61167	8	16.634	16.964	61241	8	20.376	20.694	61315	8	13.040	25.030
61020	9	22.556	7.342	61094	12	1.802	12.406	61168	11	17.015	16.782	61242	16	20.668	20.623	61316	24	13.409	25.610
61021	21	22.916	7.272	61095*	48	2.528	12.211	61169	10	19.855	16.452	61243	8	21.976	20.170	61317	10	13.476	25.834
61022*	44	24.257	7.796	61096*	8	3.210	12.449	61170	18	20.014	16.903	61244	8	23.658	20.563	61318	13	14.618	25.568
61023	26	0.270	8.954	61097	11	5.153	12.022	61171*	26	21.413	16.289	61245	28	25.034	20.334	61319	15	15.278	25.716
61024	14	4.766	8.915	61098	10	6.850	12.257	61172	11	21.837	16.511	61246	11	25.038	20.988	61320	15	15.854	25.218
61025	8	7.506	8.418	61099	10	8.408	12.143	61173*	40	22.126	16.371	61247	18	0.706	21.096	61321	10	16.493	25.228
61026*	43	9.560	8.434	61100	8	9.028	12.793	61174*	44	22.689	16.912	61248	8	5.258	21.678	61322	8	16.897	25.882
61027	14	12.038	8.038	61101	14	10.024	12.508	61175*	8	1.040	17.770	61249	14	5.958	21.680	61323	9	21.696	25.652
61028	12	12.288	8.489	61102	8	11.768	12.519	61176	28	3.287	17.277	61250	8	8.788	21.096	61324	8	22.698	25.772
61029	9	12.668	8.858	61103	13	13.368	12.951	61177	8	5.608	17.562	61251	18	11.252	21.763				
61030	8	13.987	8.498	61104	8	13.790	12.770	61178	27	5.984	17.007	61252	8	12.550	21.290				
61031	17	14.183	8.406	61105	19	15.416	12.572	61179	15	6.472	17.418	61253	17	15.934	21.558				
61032	8	14.560	8.486	61106	8	18.177	12.208	61180	12	8.366	17.716	61254*	41	18.520	21.888				
61033	21	15.169	8.290	61107	11	18.680	12.252	61181	16	8.773	17.216	61255	15	20.858	21.638				
61034	14	15.870	8.158	61108	8	18.804	12.823	61182	8	8.859	17.312	61256	35	21.116	21.094				
61035	8	16.268	8.898	61109	9	20.834	12.435	61183	11	9.248	17.572	61257	22	21.425	21.197				
61036	10	17.738	8.332	61110	10	21.564	12.770	61184	8	9.328	17.500	61258	8	23.177	21.187				
61037	12	18.732	8.844	61111	10	21.663	12.267	61185	29	13.273	17.389	61259	11	23.808	21.801				
61038	26	23.986	8.091	61112*	46	22.168	12.658	61186	10	14.247	17.376	61260	8	24.881	21.070				
61039	15	24.918	8.700	61113	9	22.294	12.768	61187	24	16.758	17.331	61261	29	3.183	22.114				
61040	18	1.726	9.906	61114	8	22.655	12.427	61188	14	17.027	17.455	61262	10	5.130	22.152				
61041	9	3.118	9.868	61115	10	23.718	12.332	61189	33	17.388	17.896	61263	12	8.582	22.252				
61042	8	3.357	9.229	61116	18	0.166	13.639	61190	8	19.655	17.562	61264	10	10.154	22.426				
61043	19	4.184	9.147	61117	15	0.643	13.358	61191	11	21.338	17.802	61265	8	10.473	22.476				
61044	24	5.790	9.166	61118	8	2.353	13.612	61192	8	21.757	17.782	61266	11	10.514	22.803				
61045	11	15.894	9.513	61119	12	4.740	13.978	61193	10	23.980	17.660	61267	14	10.794	22.453				
61046	17	16.730	9.540	61120*	40	5.083	13.178	61194	8	0.534	18.581	61268	23	12.622	22.520				
61047	8	18.210	9.481	61121	28	11.659	13.106	61195	14	0.720	18.036	61269	9	13.806	22.872				
61048	20	21.922	9.435	61122	16	16.042	13.736	61196	12	1.240	18.691	61270*	38	14.877	22.758				
61049	13	24.034	9.707	61123	8	16.672	13.556	61197	9	1.408	18.032	61271	15	16.200	22.012				
61050	13	24.495	9.747	61124	8	24.694	13.681	61198	9	1.767	18.211	61272	8	16.859	22.718				
61051	11	25.398	9.659	61125	54	25.537	13.663	61199	10	2.073	18.082	61273	22	19.224	22.567				
61052	11	25.429	9.442	61126	44	0.488	14.685	61200	13	5.816	18.983	61274*	40	19.652	22.008				
61053	10	1.583	10.781	61127	34	0.726	14.938	61201	10	9.613	18.658	61275	8	22.244	22.095				
61054	11	2.538	10.700	61128	8	2.698	14.789	61202	18	10.304	18.501	61276	13	22.319	22.812				
61055	11	2.908	10.548	61129*	44	6.005	14.351	61203	8	15.867	18.504	61277	11	25.393	22.806				
61056	8	3.022	10.502	61130	11	7.556	14.704	61204	11	16.167	18.781	61278	11	0.052	23.368				
61057	9	4.790	10.826	61131*	49	9.203	14.520	61205	28	16.466	18.824	61279	8	0.930	23.582				
61058	10	5.267	10.428	61132	8	10.024	14.887	61206	37	16.718	18.636	61280	13	3.049	23.548				
61059	20	6.444	10.960	61133	17	10.107	14.058	61207	8	17.958	18.609	61281	9	4.812	23.286				
61060	8	7.348	10.920	61134	8	12.722	14.254	61208	8	18.792	18.454	61282	8	6.170	23.763				
61061	8	8.592	10.400	61135	30	13.068	14.710	61209	26	19.782	18.950	61283	10	7.338	23.396				
61062	8	9.906	10.181	61136	8	14.138	14.168	61210	16	20.438	18.598	61284	22	7.901	23.741				
61063	8	10.336	10.617	61137	13	14.622	14.118	61211*	41	23.229	18.667	61285	17	9.363	23.936				
61064	9	14.164	10.618	61138	8	18.146	14.244	61212	23	0.067	19.973	61286	8	10.621	23.144				
61065	10	15.919	10.977	61139	10	18.882	14.433	61213	10	6.274	19.858	61287	8	12.846	23.386				
61066	18	16.612	10.500	61140	14	20.458	14.037	61214	16	8.760	19.618	61288	18	13.658	23.534				
61067	8	16.758	10.764	61141*	58	21.944	14.213	61215	14	10.613	19.294	61289	11	14.566	23.732				
61068	13	16.896	10.861	61142	18	0.392	15.425	61216	13	12.438	19.792	61290	24	23.567	23.436				
61069*	36	17.420	10.294	61143*	39	1.378	15.688	61217	13	13.398	19.398	61291	8	23.691	23.740				
61070	8	17.620	10.818	61144	8	1.385	15.188	61218	8	15.778	19.302	61292*	40	2.520	24.000				
61071	8	17.632	10.456	61145	10														



61374*	76	21.414	1.448	61448	8	17.262	7.598	61522	12	24.374	13.612	61596*	45	20.332	20.056
61375	9	22.367	1.850	61449	9	17.870	7.962	61523	15	24.383	13.069	61597	8	20.539	20.398
61376	8	23.327	1.162	61450	8	19.434	7.962	61524	9	4.296	14.533	61598*	42	23.630	20.937
61377	10	2.396	2.541	61451	11	20.876	7.900	61525	23	6.298	14.234	61599	39	25.960	20.684
61378	13	3.316	2.022	61452	9	22.500	7.124	61526	22	9.416	14.818	61600	8	1.389	21.650
61379*	53	3.507	2.364	61453	33	25.286	7.258	61527	17	11.794	14.112	61601	33	3.750	21.648
61380	37	6.450	2.766	61454	9	2.354	8.538	61528	9	19.142	14.887	61602	25	4.258	21.560
61381	10	8.564	2.337	61455	8	3.490	8.022	61529	28	19.268	14.222	61603	12	7.198	21.001
61382	10	18.180	2.492	61456	19	5.650	8.648	61530	8	20.528	14.766	61604	10	12.966	21.200
61383	8	19.952	2.799	61457	8	5.886	8.907	61531	34	25.040	14.941	61605	10	16.614	21.014
61384	8	23.267	2.530	61458	14	5.960	8.012	61532	9	1.760	15.100	61606	13	16.680	21.110
61385	11	2.784	3.767	61459	14	7.768	8.138	61533	10	6.842	15.138	61607	11	17.112	21.282
61386	18	2.814	3.593	61460	8	7.793	8.842	61534	29	8.438	15.836	61608	8	20.567	21.043
61387	8	7.030	3.080	61461	19	10.821	8.066	61535	9	11.334	15.834	61609	36	21.320	21.882
61388	8	9.169	3.576	61462*	43	11.790	8.700	61536	8	12.383	15.704	61610	13	21.388	21.578
61389	33	11.945	3.427	61463	11	13.300	8.116	61537	17	15.300	15.556	61611	12	21.410	21.005
61390*	47	16.429	3.370	61464	21	14.217	8.627	61538	31	17.068	15.938	61612*	70	21.948	21.260
61391	9	21.320	3.699	61465	10	16.468	8.561	61539	11	19.194	15.219	61613	11	2.985	22.640
61392	24	21.636	3.583	61466	10	19.110	8.947	61540	10	20.367	15.506	61614	8	5.063	22.064
61393	11	22.520	3.888	61467	9	20.286	8.738	61541	24	21.656	15.908	61615	9	7.155	22.212
61394	10	24.108	3.444	61468	8	1.478	9.555	61542	10	25.944	15.391	61616	14	9.609	22.367
61395	9	0.692	4.410	61469	8	1.942	9.588	61543	45	0.210	16.772	61617*	32	10.201	22.832
61396	13	1.286	4.202	61470	8	2.870	9.268	61544	12	3.810	16.270	61618	10	15.228	22.286
61397	8	3.178	4.312	61471	12	5.250	9.175	61545	10	7.013	16.062	61619	11	18.418	22.202
61398	14	3.724	4.578	61472	11	10.419	9.842	61546	24	8.338	16.510	61620	8	21.457	22.251
61399	28	3.730	4.561	61473	10	11.434	9.084	61547	8	8.340	16.145	61621	12	22.602	22.238
61400	19	4.344	4.500	61474	13	13.170	9.821	61548	8	8.991	16.138	61622	26	24.816	22.416
61401	8	5.240	4.937	61475	21	15.234	9.828	61549	27	9.359	16.876	61623	12	24.872	22.930
61402	10	6.522	4.993	61476	15	18.836	9.868	61550*	44	9.536	16.222	61624	21	1.162	23.287
61403	8	6.716	4.662	61477	14	22.929	9.062	61551	20	10.201	16.337	61625	9	4.166	23.438
61404	9	7.070	4.534	61478	8	23.515	9.408	61552	11	11.148	16.700	61626	26	5.045	23.078
61405	28	9.528	4.718	61479	9	0.820	10.649	61553	25	14.441	16.016	61627	12	8.291	23.176
61406*	30	9.614	4.522	61480	14	3.808	10.934	61554	10	14.822	16.928	61628	11	10.831	23.629
61407	21	10.832	4.630	61481*	46	4.024	10.478	61555*	38	17.623	16.930	61629	23	11.750	23.316
61408	19	12.200	4.903	61482	11	4.997	10.660	61556	8	18.368	16.892	61630	14	13.044	23.392
61409	8	12.673	4.599	61483	10	6.102	10.424	61557	8	19.132	16.548	61631	8	15.357	23.400
61410*	35	14.456	4.518	61484	13	15.000	10.320	61558	34	25.364	16.592	61632	10	16.703	23.592
61411	9	16.056	4.092	61485	10	15.214	10.781	61559	11	1.513	17.505	61633	10	20.448	23.400
61412	8	18.760	4.264	61486	8	17.026	10.649	61560	8	12.170	17.496	61634	16	25.408	23.263
61413	11	20.354	4.488	61487	11	19.658	10.410	61561*	38	16.792	17.302	61635	11	0.731	24.278
61414	26	21.226	4.432	61488	32	21.368	10.369	61562	11	23.361	17.178	61636	8	5.210	24.550
61415	19	22.291	4.502	61489	8	24.145	10.818	61563	8	24.244	17.079	61637	19	5.449	24.470
61416*	36	22.328	4.040	61490	8	24.751	10.770	61564	28	24.358	17.484	61638	22	5.658	24.102
61417	14	23.408	4.122	61491	8	25.155	10.397	61565*	38	0.768	18.522	61639	9	5.906	24.080
61418	20	24.118	4.966	61492	15	1.152	11.186	61566	28	5.998	18.580	61640	9	8.340	24.964
61419	25	0.478	5.131	61493	31	8.473	11.308	61567	15	14.980	18.744	61641	27	9.698	24.128
61420	14	0.594	5.937	61494	15	9.434	11.680	61568	8	18.610	18.518	61642	30	12.552	24.672
61421	9	1.012	5.096	61495	8	15.596	11.329	61569	18	19.836	18.694	61643	27	12.592	24.350
61422	8	1.994	5.579	61496	11	16.476	11.324	61570	12	23.842	18.350	61644	17	14.608	24.534
61423	28	2.394	5.871	61497	14	17.520	11.542	61571	26	25.509	18.582	61645	11	23.092	24.318
61424	38	3.194	5.714	61498	10	19.068	11.620	61572	10	0.409	19.662	61646	8	23.983	24.678
61425	10	3.922	5.354	61499	10	1.192	12.180	61573	39	2.351	19.002	61647	14	24.288	24.860
61426	10	5.706	5.818	61500	8	4.108	12.722	61574	13	5.138	19.466	61648	11	3.662	25.490
61427	18	6.233	5.690	61501	11	8.647	12.700	61575	9	5.374	19.430	61649	22	3.736	25.735
61428	23	7.264	5.868	61502	21	11.688	12.692	61576*	38	7.748	19.322	61650	18	7.662	25.790
61429	8	11.459	5.412	61503	29	16.130	12.423	61577	25	8.306	19.658	61651	8	9.608	25.427
61430	12	19.118	5.000	61504	9	17.597	12.858	61578	17	10.301	19.250	61652	10	10.063	25.334
61431	8	20.452	5.396	61505	21	17.599	12.508	61579*	37	11.986	19.870	61653	26	12.624	25.118
61432	14	23.124	5.426	61506	12	18.322	12.399	61580	10	19.304	19.396	61654	22	14.974	25.824
61433	12	23.264	5.612	61507	11	19.420	12.068	61581	25	21.119	19.138	61655	14	15.246	25.448
61434	33	5.676	6.190	61508	12	20.526	12.332	61582	22	24.019	19.908	61656	40	16.446	25.362
61435	8	9.635	6.546	61509	8	22.334	12.034	61583	9	25.050	19.172	61657	105	21.571	25.694
61436	10	13.792	6.382	61510	10	25.195	12.830	61584	30	2.596	20.170				
61437	9	15.588	6.500	61511	34	25.894	12.933	61585	11	2.607	20.820				
61438	16	16.316	6.280	61512*	55	3.020	13.492	61586	12	6.430	20.952				
61439	14	20.578	6.925	61513	19	4.512	13.702	61587	10	8.078	20.433				
61440	9	21.032	6.714	61514	26	5.341	13.902	61588	12	8.124	20.153				
61441	15	0.332	7.132	61515	9	7.146	13.923	61589	13	9.075	20.036				
61442	21	1.410	7.938	61516	8	7.614	13.098	61590	11	9.428	20.607				
61443*	44	1.674	7.640	61517	8	15.422	13.207	61591	9	10.918	20.347				
61444	8	3.578	7.524	61518	12	15.957	13.973	61592	11	14.346	20.235				
61445	8	4.820	7.541	61519	23	18.381	13.832	61593	8	14.876	20.640				
61446	12	8.052	7.182	61520	25	18.931	13.105	61594*	72	15.104	20.540				
61447	11	11.673	7.600	61521	11	19.324	13.209	61595	11	16.918	20.100				

R.A. 20<sup>h</sup> 28<sup>m</sup>

Plate 734 ; 1916 June 6.

Provisional Constants.

A	B	C
-0.2555	+0.0658	+1.197

D	E	F
-0.0662	-0.2572	-1.268

Mag. = 16.9 - 1.09√d

No.	d	x	y
61700	8	1.042	0.667
61701	8	2.856	0.574
61702	23	4.684	0.930
61703	37	5.006	0.042
61704	26	5.187	0.654
61705	8	5.814	0.936
61706	15	6.936	0.934
61707	8	8.696	0.450
61708	9	9.566	0.756
61709	8	10.391	0.493
61710*	40	12.095	0.070
61711	34	13.021	0.228
61712	8	15.724	0.020
61713	10	20.948	0.374
61714	33	23.449	0.926
61715	8	25.517	0.852
61716	12	25.774	0.642
61717	12	0.923	1.436
61718	8	6.353	1.622
61719	8	6.750	1.584
61720	31	7.344	1.008
61721	8	9.527	1.848
61722	8	11.948	1.642
61723	8	13.708	1.273
61724*	44	14.724	1.182
61725	8	17.332	1.528
61726	10	19.010	1.136
61727	10	21.562	1.662
61728	8	22.681	1.285
61729	8	23.700	1.016
61730	8	25.839	1.550
61731	16	0.880	2.800
61732	33	4.640	2.238
61733*	80	4.756	2.076
61734	8	6.324	2.755
61735	32	6.382	2.236
61736	19	6.990	2.960
61737	8	7.542	2.457
61738	24	7.584	2.600
61739	10	7.653	2.821
61740	8	7.686	2.713
61741	26	8.184	2.471
61742	24	8.710	2.333
61743	8	8.812	2.693
61744	15	9.306	2.421
61745	8	9.966	2.838
61746	10	10.096	2.929
61747	23	11.896	2.117
61748	18	11.966	2.571
61749	15	12.807	2.187
61750	10	12.879	2.528
61751*	60	16.198	2.386
61752	8	17.178	2.966
61753	12	17.618	2.011
61754	8	17.655	2.447
61755	12	18.974	2.377



61756	8	19.722	2.810	61830	9	7.772	6.471	61904	13	2.875	10.643	61978	33	4.672	13.664	62052	9	7.030	16.380
61757	13	20.394	2.730	61831	10	7.880	6.188	61905	13	3.564	10.068	61979	29	6.222	13.770	62053	8	8.522	16.385
61758	8	22.865	2.516	61832	40	8.816	6.454	61906	25	5.348	10.422	61980	30	6.750	13.990	62054	8	8.543	16.140
61759	10	23.734	2.441	61833	8	8.906	6.494	61907	21	5.514	10.595	61981	35	7.068	13.276	62055*	58	8.954	16.514
61760	9	24.974	2.915	61834*	57	8.958	6.284	61908	38	7.016	10.706	61982	31	8.325	13.930	62056	16	9.425	16.536
61761	8	25.235	2.911	61835	20	9.800	6.640	61909	37	7.474	10.458	61983	8	9.880	13.346	62057	41	11.464	16.138
61762	22	1.728	3.707	61836	13	10.298	6.955	61910	13	7.658	10.892	61984	21	9.988	13.706	62058	27	11.665	16.070
61763	8	2.265	3.401	61837	8	14.152	6.183	61911	34	11.464	10.480	61985	20	11.138	13.020	62059	8	12.612	16.979
61764	19	2.559	3.963	61838	8	18.320	6.861	61912	19	12.600	10.530	61986	8	11.358	13.724	62060	15	12.770	16.268
61765	9	4.117	3.689	61839	13	19.546	6.130	61913	8	14.020	10.064	61987	11	11.479	13.042	62061	8	12.774	16.386
61766	14	4.616	3.602	61840	35	19.734	6.438	61914	9	15.734	10.392	61988	8	12.531	13.700	62062	26	13.006	16.024
61767	33	5.445	3.230	61841	8	19.734	6.656	61915	8	17.442	10.932	61989	14	12.640	13.599	62063	11	15.843	16.713
61768	11	10.026	3.571	61842	38	19.877	6.668	61916	34	17.458	10.792	61990	19	13.102	13.154	62064	27	16.284	16.800
61769	23	10.251	3.618	61843	13	20.749	6.938	61917*	100	18.129	10.910	61991	34	13.208	13.690	62065	8	17.288	16.544
61770	11	13.285	3.354	61844	30	21.135	6.492	61918	9	18.856	10.386	61992	8	16.637	13.866	62066	31	18.368	16.794
61771	8	14.880	3.252	61845	8	23.675	6.522	61919	8	20.718	10.634	61993	8	17.098	13.716	62067	11	19.278	16.624
61772	22	15.109	3.167	61846	8	25.884	6.936	61920	8	24.059	10.281	61994	24	20.086	13.906	62068	11	19.820	16.198
61773	8	15.840	3.351	61847	14	0.173	7.408	61921	33	24.812	10.582	61995	9	20.700	13.744	62069	11	19.832	16.638
61774	11	17.848	3.277	61848*	40	2.958	7.500	61922	8	25.157	10.758	61996	8	21.554	13.919	62070*	46	20.126	16.688
61775	37	19.222	3.426	61849*	34	3.875	7.950	61923	9	25.729	10.047	61997	33	21.920	13.690	62071	12	21.449	16.348
61776	44	20.435	3.922	61850	27	8.542	7.231	61924	14	1.864	11.077	61998	27	24.042	13.116	62072*	45	21.826	16.639
61777	10	21.746	3.220	61851	11	11.852	7.821	61925	16	2.466	11.020	61999	8	24.340	13.904	62073	20	22.955	16.834
61778	37	21.905	3.719	61852	20	12.130	7.450	61926	9	3.086	11.298	62000	9	0.389	14.724	62074	11	24.085	16.635
61779	14	24.015	3.456	61853	19	12.386	7.540	61927*	70	4.460	11.184	62001	11	2.652	14.118	62075	14	24.090	16.269
61780	9	24.648	3.270	61854	9	12.572	7.584	61928	21	6.834	11.540	62002	8	3.060	14.597	62076	13	24.666	16.485
61781	21	0.150	4.170	61855	13	14.690	7.259	61929*	80	9.690	11.876	62003	8	3.297	14.010	62077	30	24.948	16.490
61782	10	0.966	4.606	61856	22	17.635	7.800	61930	22	12.470	11.328	62004	8	4.610	14.718	62078	10	25.896	16.465
61783	26	1.040	4.394	61857	13	20.879	7.020	61931	8	13.762	11.709	62005	12	5.014	14.894	62079	25	1.172	17.446
61784	8	1.686	4.994	61858	9	22.206	7.255	61932	8	14.036	11.480	62006	22	5.756	14.315	62080	12	1.386	17.110
61785	9	4.210	4.732	61859	8	22.775	7.800	61933	8	14.606	11.590	62007	8	6.055	14.192	62081	8	1.787	17.185
61786	9	5.694	4.176	61860	8	23.104	7.945	61934	8	14.849	11.892	62008	8	7.570	14.790	62082	8	2.042	17.344
61787	27	5.786	4.631	61861	8	1.748	8.869	61935	15	16.004	11.459	62009	14	7.936	14.994	62083	11	2.050	17.336
61788	21	6.034	4.104	61862	12	2.384	8.102	61936	8	17.326	11.420	62010	29	9.224	14.476	62084	35	2.170	17.742
61789	8	6.238	4.387	61863	34	3.736	8.528	61937	32	17.586	11.170	62011	14	11.283	14.330	62085	8	2.772	17.292
61790	28	6.739	4.774	61864	8	5.624	8.904	61938	8	18.266	11.864	62012	8	11.650	14.374	62086	8	5.688	17.424
61791	35	9.730	4.716	61865	13	7.924	8.921	61939	8	18.557	11.310	62013	8	13.440	14.214	62087	29	5.854	17.914
61792	28	10.535	4.154	61866	8	9.764	8.732	61940	31	18.844	11.603	62014	8	14.847	14.102	62088	8	6.407	17.916
61793	11	11.326	4.752	61867	11	9.780	8.736	61941	8	19.426	11.428	62015	10	16.101	14.018	62089	8	7.210	17.608
61794	8	12.214	4.380	61868	8	10.814	8.211	61942	8	20.264	11.101	62016	8	16.832	14.860	62090	8	7.734	17.646
61795	9	15.006	4.967	61869	8	11.776	8.212	61943	11	21.133	11.220	62017	8	19.252	14.179	62091	22	9.106	17.136
61796	12	15.710	4.273	61870	10	13.902	8.812	61944	26	21.886	11.804	62018	16	20.467	14.934	62092	26	9.395	17.650
61797	9	19.130	4.876	61871	22	14.786	8.078	61945	32	23.000	11.404	62019	8	20.641	14.088	62093	15	11.481	17.132
61798	20	21.060	4.494	61872	8	15.434	8.484	61946	40	23.742	11.636	62020	30	21.357	14.921	62094	8	13.078	17.206
61799	32	25.308	4.114	61873	36	16.580	8.388	61947	24	24.426	11.788	62021	34	21.374	14.298	62095	26	13.798	17.360
61800	29	0.774	5.700	61874	8	18.040	8.152	61948	29	24.932	11.234	62022	19	22.991	14.382	62096	8	14.290	17.841
61801	25	0.915	5.884	61875	8	19.698	8.996	61949	31	25.018	11.868	62023	12	23.522	14.211	62097	30	14.442	17.960
61802	34	1.760	5.226	61876	8	21.001	8.686	61950	10	0.074	12.322	62024	24	23.785	14.026	62098	10	15.935	17.390
61803	9	2.536	5.827	61877	8	24.381	8.623	61951	8	1.260	12.395	62025	12	2.306	15.740	62099	33	16.228	17.919
61804	22	4.505	5.512	61878	23	0.626	9.338	61952	8	5.526	12.595	62026	37	2.815	15.186	62100	8	17.510	17.162
61805	11	5.276	5.624	61879	10	1.220	9.674	61953	8	6.348	12.208	62027	8	3.112	15.382	62101	14	18.196	17.946
61806	12	6.065	5.773	61880	9	1.244	9.358	61954	12	7.680	12.200	62028	19	3.728	15.628	62102	10	18.421	17.308
61807	17	6.081	5.336	61881	10	2.990	9.664	61955	25	7.962	12.546	62029	23	10.355	15.876	62103	8	20.510	17.600
61808	16	6.421	5.830	61882	12	3.104	9.478	61956	8	8.449	12.241	62030	8	11.953	15.526	62104	8	21.426	17.936
61809	9	7.306	5.656	61883	8	3.408	9.102	61957	23	10.667	12.616	62031	10	12.180	15.064	62105	22	21.583	17.156
61810	8	7.306	5.979	61884	8	3.501	9.258	61958	8	10.687	12.046	62032	25	13.733	15.518	62106*	82	24.488	17.929
61811	18	7.552	5.018	61885	11	4.058	9.243	61959	14	13.042	12.220	62033	19	15.264	15.980	62107	10	25.302	17.553
61812	20	8.361	5.082	61886	18	4.546	9.011	61960	26	13.950	12.338	62034*	42	15.436	15.462	62108	14	25.446	17.778
61813	36	10.829	5.564	61887*	33	5.854	9.916	61961	29	14.724	12.456	62035	8	16.900	15.670	62109	31	25.853	17.066
61814*	58	11.262	5.054	61888	11	7.794	9.388	61962	12	16.432	12.184	62036	8	17.262	15.679	62110	8	0.132	18.718
61815	8	12.922	5.096	61889	8	9.233	9.248	61963	12	17.186	12.859	62037	8	19.951	15.408	62111	8	1.308	18.216
61816	20	12.958	5.094	61890	30	9.287	9.043	61964	9	17.346	12.772	62038	8	20.227	15.062	62112	24	1.666	18.613
61817	20	13.940	5.856	61891	23	10.610	9.007	61965	21	17.564	12.363	62039	20	20.396	15.568	62113	33	3.336	18.824
61818	8	14.402	5.074	61892	9	12.414	9.180	61966	8	17.782	12.680	62040	18	20.400	15.082	62114	12	3.441	18.975



62126	12	13.827	18.250	62200	9	13.546	21.169	62274	12	12.518	24.772	62360	32	8.906	0.261	62434	30	21.162	3.945
62127	12	14.334	18.028	62201	17	13.716	21.262	62275	10	13.100	24.209	62361	40	9.858	0.044	62435	16	23.355	3.974
62128	12	15.998	18.834	62202	8	14.600	21.360	62276	10	13.924	24.694	62362	22	11.376	0.081	62436	37	2.806	4.092
62129	8	16.087	18.008	62203	11	15.106	21.267	62277	8	15.304	24.345	62363	11	12.374	0.644	62437	12	3.109	4.054
62130	27	17.260	18.424	62204	12	15.480	21.128	62278	13	15.600	24.348	62364	17	12.480	0.343	62438	10	3.600	4.904
62131	12	17.376	18.306	62205	11	18.384	21.760	62279	26	15.624	24.492	62365	15	13.040	0.897	62439*	40	4.731	4.323
62132	24	20.384	18.621	62206	8	19.222	21.464	62280	22	16.874	24.007	62366*	56	15.680	0.936	62440	36	4.808	4.902
62133	17	21.884	18.884	62207	12	19.548	21.028	62281	42	18.122	24.989	62367	34	15.690	0.658	62441	27	5.338	4.644
62134	35	22.183	18.942	62208	12	19.787	21.666	62282	11	19.479	24.183	62368	17	16.812	0.700	62442	17	6.904	4.463
62135	8	22.782	18.566	62209	18	21.070	21.706	62283	17	20.478	24.161	62369*	54	16.864	0.364	62443	26	9.840	4.215
62136	12	23.607	18.402	62210	8	24.930	21.746	62284	23	22.522	24.648	62370	42	17.226	0.609	62444	14	11.416	4.272
62137	8	23.762	18.316	62211	23	0.482	22.516	62285	8	22.531	24.473	62371	17	17.301	0.026	62445	9	12.713	4.075
62138	8	24.748	18.170	62212	10	1.435	22.356	62286	31	22.826	24.320	62372	16	17.559	0.158	62446	12	13.654	4.500
62139	27	25.226	18.685	62213	35	2.698	22.664	62287	15	23.307	24.050	62373	13	18.312	0.496	62447	15	17.926	4.646
62140	10	25.478	18.168	62214	9	5.369	22.005	62288	10	25.258	24.750	62374	26	22.208	0.729	62448	18	24.075	4.682
62141	33	25.700	18.826	62215	21	5.375	22.983	62289	10	0.844	25.465	62375	34	22.399	0.396	62449	16	25.714	4.714
62142	21	2.886	19.420	62216	22	6.165	22.195	62290	27	2.204	25.114	62376	34	22.466	0.612	62450*	44	0.794	5.126
62143	8	5.776	19.464	62217	8	7.231	22.921	62291	8	4.239	25.812	62377	15	23.338	0.226	62451	22	4.356	5.630
62144	28	7.520	19.312	62218	12	8.286	22.934	62292	28	8.168	25.224	62378	11	0.156	1.286	62452	13	4.890	5.885
62145	8	7.934	19.348	62219	17	11.795	22.457	62293	8	8.362	25.283	62379	13	1.170	1.012	62453	13	5.106	5.972
62146	12	8.280	19.722	62220	24	12.304	22.124	62294	21	8.368	25.522	62380	12	3.314	1.520	62454	11	5.746	5.616
62147	23	9.575	19.548	62221	31	12.712	22.134	62295	8	12.164	25.362	62381	13	3.644	1.040	62455	15	5.756	5.104
62148	8	11.188	19.930	62222	8	13.626	22.132	62296	8	13.138	25.021	62382	15	3.786	1.673	62456	14	6.386	5.884
62149	12	11.916	19.626	62223	12	15.163	22.537	62297	8	13.252	25.198	62383	20	5.426	1.744	62457	20	7.280	5.073
62150	15	12.386	19.130	62224	10	15.526	22.479	62298	9	15.462	25.408	62384	15	7.780	1.383	62458	15	8.244	5.198
62151	25	12.606	19.434	62225	10	15.686	22.942	62299	12	15.518	25.530	62385	14	9.921	1.139	62459	15	9.226	5.736
62152	8	13.306	19.226	62226	16	18.781	22.732	62300	8	16.618	25.198	62386	19	10.366	1.146	62460	13	9.307	5.452
62153	8	14.074	19.814	62227	8	19.511	22.540	62301	9	16.890	25.290	62387	21	11.880	1.000	62461	26	10.108	5.136
62154*	36	14.450	19.562	62228	8	20.877	22.803	62302	56	17.726	25.675	62388	22	14.110	1.335	62462	12	10.250	5.494
62155*	46	18.461	19.134	62229	27	20.881	22.690	62303	10	17.772	25.025	62389	36	14.851	1.452	62463	34	12.700	5.078
62156	15	18.866	19.764	62230	9	23.701	22.299	62304	26	17.956	25.345	62390	8	15.457	1.182	62464	12	13.430	5.876
62157	16	19.198	19.491	62231	8	23.909	22.402	62305	8	18.514	25.856	62391	10	16.368	1.228	62465	16	13.752	5.488
62158	8	19.488	19.422	62232	43	25.428	22.380	62306	18	18.984	25.694	62392	32	17.438	1.856	62466	20	14.532	5.084
62159	9	20.288	19.730	62233	12	25.834	22.598	62307	11	19.205	25.966	62393	14	18.564	1.838	62467	12	15.086	5.475
62160	8	21.741	19.942	62234	26	2.762	23.176	62308	36	23.028	25.409	62394	15	23.215	1.085	62468	31	15.599	5.576
62161	11	21.859	19.082	62235	8	3.200	23.870	62309	45	23.268	25.611	62395	13	23.508	1.916	62469	21	17.094	5.965
62162	13	23.452	19.878	62236	28	3.300	23.504	62310	8	24.118	25.230	62396	11	25.597	1.338	62470	17	19.162	5.352
62163	21	23.760	19.348	62237	8	5.456	23.570	62311	8	24.192	25.048	62397	17	0.348	2.516	62471	10	19.330	5.457
62164	8	23.795	19.938	62238	8	5.624	23.162	62312	10	25.280	25.402	62398	15	1.218	2.435	62472	12	20.072	5.058
62165	8	24.745	19.502	62239	10	6.359	23.450					62399	17	2.464	2.898	62473	26	20.453	5.860
62166	32	1.864	20.169	62240	24	6.796	23.705					62400	12	2.726	2.899	62474	25	21.726	5.652
62167	8	2.475	20.782	62241	15	9.634	23.727					62401*	39	5.084	2.756	62475	21	22.662	5.338
62168*	44	3.815	20.917	62242	8	10.148	23.019					62402	16	5.859	2.344	62476*	39	22.925	5.242
62169	11	5.632	20.104	62243	8	13.495	23.197					62403	11	10.328	2.648	62477	12	23.758	5.954
62170	22	5.643	20.960	62244	10	16.171	23.544					62404	17	10.494	2.734	62478	22	24.335	5.215
62171	10	5.896	20.300	62245	12	16.291	23.294					62405	18	13.212	2.132	62479	14	25.330	5.722
62172	15	7.342	20.774	62246	8	16.338	23.422					62406	13	15.164	2.136	62480	15	25.530	5.782
62173	40	7.970	20.677	62247	9	16.556	23.023					62407	12	18.234	2.925	62481	14	3.558	6.260
62174	20	8.242	20.208	62248	10	16.682	23.878					62408*	58	18.986	2.590	62482	30	4.638	6.056
62175	15	8.692	20.669	62249	8	17.683	23.664					62409	12	19.156	2.083	62483	15	5.164	6.860
62176	19	9.080	20.464	62250	29	17.704	23.926					62410	28	19.562	2.123	62484*	98	9.762	6.246
62177	10	13.336	20.448	62251	28	17.861	23.158					62411	14	20.058	2.006	62485	15	14.384	6.457
62178	25	13.754	20.146	62252	8	18.902	23.885					62412	10	20.272	2.145	62486	37	18.540	6.328
62179	8	15.295	20.442	62253	9	18.915	23.866					62413	36	21.878	2.860	62487	14	19.016	6.026
62180	25	16.385	20.441	62254	9	18.998	23.783					62414	17	22.548	2.000	62488	34	19.042	6.782
62181	8	16.873	20.305	62255	8	19.618	23.244					62415*	87	22.982	2.458	62489	17	19.106	6.594
62182	13	16.966	20.305	62256	27	21.142	23.344					62416*	61	23.080	2.313	62490	13	19.616	6.418
62183	35	20.209	20.732	62257	9	22.006	23.991					62417	14	23.270	2.337	62491	38	22.100	6.391
62184	10	20.233	20.736	62258	10	22.017	23.674					62418	8	24.536	2.686	62492	17	22.576	6.384
62185	11	20.540	20.711	62259	19	22.984	23.112					62419	22	25.286	2.017	62493	14	22.661	6.756
62186	13	21.824	20.678	62260	8	23.050	23.115					62420	12	25.428	2.191	62494	17	25.514	6.698
62187*	36	24.866	20.144	62261	10	23.088	23.590					62421	23	1.508	3.448	62495	10	0.308	7.802
62188	24	24.956	20.988	62262	9	23.210	23.238					62422	16	2.142	3.254	62496	10	0.639	7.944
62189	33	25.136	20.539	62263	35	24.034	23.010					62423	14	5.194	3.607	62497	27	3.692	7.004
62190	10	25.860	20.750	62264	8	24.956	23.844					62424	11	7.951	3.130	62498	17	3.950	7.106
62191	8	0.763	21.870	62265	13	1.000	24.590					62425	14						



62508	12	14.940	7.194	62582	19	13.094	11.620	62656	17	24.996	14.404	62730	10	16.150	17.014	62804	36	1.712	22.998
62509	14	16.371	7.033	62583	34	14.044	11.466	62657	14	25.832	14.572	62731	10	17.200	17.000	62805	40	3.102	22.355
62510	20	17.384	7.008	62584	11	15.514	11.944	62658*	37	0.752	15.034	62732	29	19.311	17.694	62806	19	3.514	22.570
62511	20	18.076	7.856	62585	20	17.066	11.046	62659	13	0.818	15.559	62733	17	21.226	17.935	62807	9	3.965	22.874
62512	19	18.773	7.260	62586	16	19.035	11.586	62660	15	1.914	15.692	62734	10	21.687	17.537	62808	18	6.464	22.416
62513	23	19.297	7.538	62587	32	19.252	11.895	62661	14	1.964	15.404	62735	37	22.302	17.882	62809	14	7.028	22.940
62514	13	21.351	7.156	62588	14	19.676	11.128	62662	15	3.095	15.112	62736	11	23.518	17.528	62810	16	7.144	22.535
62515	30	21.366	7.015	62589	10	23.046	11.895	62663	15	4.012	15.456	62737	26	25.934	17.876	62811	14	7.220	22.568
62516	18	24.783	7.670	62590	10	23.860	11.810	62664	16	4.160	15.486	62738	17	1.244	18.396	62812	10	8.726	22.574
62517	20	3.784	8.564	62591	8	24.526	11.116	62665	28	4.654	15.614	62739	23	2.865	18.664	62813	18	9.334	22.375
62518	12	4.094	8.408	62592	17	1.134	12.865	62666	21	5.292	15.582	62740	15	3.114	18.143	62814	21	9.696	22.094
62519	37	6.703	8.801	62593	15	1.184	12.484	62667	12	7.217	15.224	62741	31	3.344	18.798	62815	16	12.258	22.622
62520	14	6.828	8.492	62594	20	2.214	12.746	62668	12	7.258	15.993	62742	17	4.708	18.754	62816	9	13.283	22.677
62521	27	7.008	8.874	62595	16	2.688	12.524	62669	17	7.530	15.980	62743	11	5.600	18.206	62817	12	14.798	22.846
62522	22	7.052	8.236	62596	28	3.132	12.820	62670	35	8.300	15.782	62744	10	7.856	18.837	62818	10	15.146	22.918
62523	44	8.138	8.472	62597	15	5.074	12.354	62671	16	8.514	15.089	62745	15	8.058	18.830	62819	14	16.118	22.265
62524	17	9.154	8.548	62598	29	5.534	12.156	62672	37	10.305	15.455	62746	9	10.720	18.855	62820	25	16.125	22.348
62525	32	10.955	8.264	62599	13	5.598	12.782	62673	14	10.563	15.075	62747	36	15.134	18.750	62821	15	17.571	22.536
62526	14	14.968	8.476	62600	30	8.536	12.907	62674	15	10.838	15.804	62748	19	15.313	18.904	62822	19	18.998	22.836
62527	10	15.050	8.236	62601	31	9.612	12.655	62675	26	13.804	15.571	62749	15	15.532	18.840	62823	19	20.778	22.066
62528*	38	15.834	8.875	62602	19	9.713	12.736	62676	10	14.752	15.274	62750	9	18.958	18.984	62824	10	21.291	22.376
62529	13	17.255	8.052	62603	16	9.886	12.964	62677	17	14.932	15.074	62751	20	20.556	18.438	62825	38	23.407	22.516
62530	15	19.143	8.828	62604	20	11.642	12.590	62678	16	16.859	15.547	62752	15	20.659	18.492	62826	13	24.385	22.383
62531	14	19.314	8.602	62605*	40	11.817	12.896	62679	16	18.800	15.592	62753	18	21.522	18.629	62827	27	0.668	23.112
62532*	46	21.950	8.916	62606	10	12.420	12.243	62680	12	18.883	15.908	62754	23	24.867	18.366	62828	15	0.778	23.588
62533	26	23.644	8.394	62607	16	14.570	12.156	62681	30	18.894	15.263	62755	30	25.682	18.119	62829	12	0.896	23.234
62534	17	24.366	8.142	62608	12	15.648	12.148	62682	24	21.580	15.920	62756	15	1.104	19.872	62830	12	2.648	23.823
62535	10	4.102	9.810	62609	10	16.178	12.714	62683	10	25.184	15.070	62757	18	1.408	19.340	62831	16	3.864	23.996
62536	15	5.876	9.215	62610	33	19.885	12.623	62684	19	0.576	16.831	62758	9	2.395	19.484	62832	10	3.893	23.972
62537	13	8.966	9.714	62611	14	19.966	12.292	62685	15	1.705	16.624	62759	13	3.750	19.614	62833	21	5.530	23.924
62538	12	10.450	9.500	62612	25	22.306	12.745	62686	16	1.706	16.256	62760	14	4.919	19.070	62834	12	6.892	23.982
62539	25	10.936	9.271	62613	36	23.199	12.667	62687	14	2.287	16.468	62761	8	8.068	19.486	62835	19	9.576	23.554
62540	16	11.034	9.541	62614	19	23.385	12.433	62688	23	2.565	16.470	62762	17	8.884	19.589	62836	15	10.088	23.301
62541	33	11.386	9.139	62615	15	23.971	12.188	62689	15	3.516	16.434	62763	33	9.618	19.643	62837	13	10.576	23.347
62542	10	13.176	9.322	62616	12	24.433	12.928	62690	13	4.593	16.863	62764	12	12.043	19.148	62838	25	11.492	23.748
62543	24	14.546	9.282	62617	23	1.627	13.106	62691	21	6.632	16.770	62765	9	12.834	19.610	62839	16	11.770	23.452
62544	14	16.230	9.464	62618	12	4.000	13.308	62692	15	6.808	16.572	62766	13	15.078	19.274	62840	14	11.914	23.537
62545	27	19.840	9.264	62619	41	4.114	13.806	62693	10	8.138	16.464	62767	38	17.224	19.643	62841*	50	11.915	23.481
62546	14	25.264	9.585	62620	25	4.442	13.686	62694	26	9.248	16.938	62768	28	18.614	19.089	62842*	41	12.330	23.848
62547	11	1.620	10.270	62621	9	4.814	13.622	62695	16	9.638	16.945	62769	34	19.523	19.544	62843	8	14.026	23.944
62548	36	2.372	10.566	62622	14	6.002	13.414	62696	18	10.422	16.164	62770	17	20.042	19.475	62844	11	14.452	23.516
62549	13	3.285	10.018	62623	28	6.798	13.098	62697	20	10.664	16.944	62771	23	21.731	19.730	62845	24	22.299	23.852
62550	29	4.035	10.034	62624	37	11.605	13.112	62698	17	13.098	16.464	62772	29	24.854	19.206	62846	16	23.782	23.762
62551	22	4.977	10.708	62625	10	12.429	13.058	62699	12	13.790	16.628	62773	15	25.287	19.860	62847	27	24.677	23.640
62552*	46	5.738	10.094	62626	15	14.818	13.926	62700	14	13.936	16.989	62774	45	25.716	19.789	62848	19	25.806	23.645
62553	36	5.958	10.169	62627	31	16.826	13.364	62701	17	15.682	16.276	62775*	38	2.520	20.125	62849	29	0.221	24.651
62554	14	8.044	10.834	62628*	52	19.092	13.714	62702	17	16.909	16.600	62776	22	2.618	20.966	62850	39	0.522	24.324
62555	15	8.308	10.066	62629	16	20.732	13.708	62703	30	17.150	16.678	62777	36	2.792	20.516	62851	22	1.002	24.046
62556	20	8.698	10.676	62630	18	23.028	13.886	62704*	38	17.460	16.708	62778	16	3.522	20.723	62852	18	2.960	24.726
62557	17	12.063	10.036	62631	18	23.372	13.257	62705	29	17.576	16.600	62779	22	9.219	20.058	62853	38	5.646	24.534
62558	18	13.096	10.908	62632	37	25.966	13.136	62706	12	18.190	16.442	62780	18	10.400	20.804	62854	11	6.803	24.040
62559	15	14.528	10.408	62633	20	0.588	14.383	62707	14	19.577	16.392	62781	43	10.915	20.958	62855	16	9.552	24.720
62560	22	17.270	10.296	62634	15	1.119	14.207	62708	19	20.088	16.196	62782*	64	11.910	20.904	62856	40	11.624	24.471
62561	10	18.339	10.930	62635	21	1.379	14.018	62709	23	22.292	16.064	62783	9	12.002	20.853	62857	18	11.994	24.664
62562	17	21.442	10.720	62636	14	4.990	14.149	62710	14	22.451	16.045	62784	12	12.048	20.144	62858	36	14.423	24.273
62563	17	22.374	10.107	62637	19	5.456	14.844	62711	12	22.602	16.115	62785	19	13.485	20.314	62859	15	14.876	24.422
62564	15	22.598	10.656	62638	18	6.076	14.591	62712	14	24.748	16.946	62786	15	13.834	20.238	62860	11	16.014	24.682
62565	21	23.324	10.173	62639	20	6.568	14.254	62713	19	24.981	16.798	62787	17	14.625	20.898	62861	23	16.046	24.094
62566	14	23.786	10.268	62640	36	6.944	14.054	62714*	104	2.112	17.915	62788	12	14.914	20.156	62862	44	19.086	24.900
62567	22	24.546	10.363	62641	36	6.982	14.512	62715	15	2.933	17.530	62789	22	16.424	20.580	62863	38	19.349	24.824
62568	36	0.567	11.404	62642	14	7.736	14.152	62716	19	3.078	17.754	62790	20	19.228	20.462	62864	17	20.466	24.196
62569	41	1.313	11.628	62643	13	8.280	14.298	62717	36	3.475	17.036	62791	16	21.576	20.648	62865	28	21.082	24.624
62570																			



62878	14	9.563	25.011	62936	9	25.435	4.664	63010	8	0.800	13.772	63084*	20	3.227	20.330	63152	22	6.817	0.624																
62879	22	9.884	25.512	62937	8	0.009	5.796	63011	15	3.418	13.621	63085	12	5.925	20.480	63153	10	8.154	0.486																
62880	62	10.936	25.786	62938	20	0.273	5.696	63012	16	3.944	13.492	63086	14	11.290	20.640	63154	25	8.858	0.246																
62881	24	11.692	25.856	62939	8	1.694	5.655	63013*	18	3.959	13.497	63087	10	14.164	20.823	63155	27	11.326	0.194																
62882	14	13.563	25.784	62940	10	5.585	5.640	63014	11	5.602	13.570	63088*	23	16.444	20.500	63156	10	13.246	0.897																
62883	15	14.124	25.708	62941	8	8.301	5.250	63015	13	6.919	13.888	63089	8	19.355	20.461	63157	10	13.930	0.215																
62884	18	15.156	25.026	62942	8	11.544	5.208	63016*	35	8.750	13.952	63090*	18	22.996	20.822	63158	11	15.852	0.263																
62885	34	15.992	25.686	62943	10	17.420	5.708	63017	9	15.188	13.046	63091	10	6.658	21.490	63159*	52	16.734	0.964																
62886	10	17.479	25.744	62944	8	18.926	5.574	63018	8	15.447	13.899	63092	10	7.949	21.709	63160	8	17.811	0.598																
62887	38	17.680	25.524	62945	8	19.563	5.972	63019	10	16.838	13.092	63093	12	8.479	21.710	63161	8	19.029	0.153																
62888	40	20.130	25.578	62946	12	20.200	5.222	63020	11	20.075	13.692	63094	8	10.986	21.530	63162	8	21.514	0.433																
62889	14	21.824	25.016	62947	8	21.772	5.662	63021	19	24.581	13.816	63095	10	11.574	21.537	63163	8	4.961	1.854																
62890	34	24.356	25.026	62948	9	23.652	5.796	63022	8	0.461	14.406	63096	11	18.192	21.728	63164	10	8.604	1.706																
<div>R.A. 20<sup>h</sup> 44<sup>m</sup></div> <div>Plate 570 ; 1915 July 8.</div> <div>Provisional Constants.</div> <div>A      B      C</div> <div>-01746 +00562 -1290</div> <div>D      E      F</div> <div>-00558 -01766 -0173</div> <div>Mag.=14.5-1.09√d</div>																				62949	8	2.905	6.210	63023	8	2.447	14.908	63097	10	22.851	21.320	63165	8	11.346	1.752
																				62950	12	7.326	6.639	63024	8	4.380	14.750	63098	12	25.408	21.820	63166	11	11.374	1.250
																				62951	10	9.892	6.372	63025	8	8.643	14.676	63099	12	0.476	22.430	63167	14	11.390	1.199
																				62952	8	9.909	6.130	63026	8	10.184	14.860	63100	14	3.732	22.923	63168*	40	11.693	1.956
																				62953	8	11.332	6.094	63027	9	10.655	14.658	63101	8	4.283	22.623	63169	18	12.584	1.314
																				62954	13	11.338	6.472	63028	8	19.417	14.492	63102	11	13.648	22.752	63170	10	14.234	1.314
																				62955	8	20.542	6.784	63029*	24	3.652	15.661	63103	10	17.754	22.621	63171*	57	16.674	1.965
																				62956	11	21.884	6.788	63030	10	3.906	15.263	63104	14	17.811	22.952	63172	17	21.150	1.517
																				62957	10	23.606	6.781	63031	8	4.743	15.430	63105	8	18.874	22.399	63173	8	23.145	1.244
																				62958	8	24.047	6.434	63032	12	9.024	15.436	63106	13	23.033	22.540	63174	8	23.637	1.624
<div>R.A. 20<sup>h</sup> 52<sup>m</sup></div> <div>Plate 753 ; 1916 Aug. 30.</div> <div>Provisional Constants.</div> <div>A      B      C</div> <div>-02574 +00239 +2100</div> <div>D      E      F</div> <div>-00260 -02574 -1616</div> <div>Mag.=17.1-1.09√d</div>																				62959	8	6.751	7.690	63033	9	12.164	15.548	63107	13	24.474	22.183	63175	14	24.016	1.247
																				62960	8	7.035	7.960	63034	11	16.620	15.990	63108	12	0.927	23.100	63176	12	0.996	2.128
																				62961	8	10.800	7.100	63035*	22	24.182	15.732	63109*	27	17.987	23.032	63177	8	1.666	2.272
																				62962	10	12.176	7.612	63036	14	4.651	16.166	63110	12	20.146	23.096	63178	9	2.143	2.965
																				62963	15	13.332	7.629	63037	13	4.844	16.162	63111*	27	22.042	23.670	63179	8	3.625	2.108
																				62964*	28	21.790	7.245	63038	8	5.369	16.522	63112	8	22.782	23.974	63180	21	4.932	2.692
																				62965	10	1.028	8.864	63039	8	7.438	16.557	63113	16	23.569	23.862	63181	13	7.218	2.526
																				62966	9	1.752	8.603	63040	19	8.533	16.144	63114	10	25.586	23.945	63182	9	7.734	2.607
																				62967	14	4.050	8.454	63041	13	9.652	16.610	63115	8	2.224	24.224	63183	9	9.054	2.509
																				62968	11	7.595	8.628	63042*	22	11.149	16.454	63116	8	3.362	24.219	63184	11	9.368	2.055
<div>R.A. 20<sup>h</sup> 52<sup>m</sup></div> <div>Plate 753 ; 1916 Aug. 30.</div> <div>Provisional Constants.</div> <div>A      B      C</div> <div>-02574 +00239 +2100</div> <div>D      E      F</div> <div>-00260 -02574 -1616</div> <div>Mag.=17.1-1.09√d</div>																				62969*	20	7.761	8.334	63043	12	12.064	16.774	63117	9	5.869	24.934	63185	8	10.433	2.782
																				62970	8	13.372	8.900	63044	19	13.818	16.478	63118	9	8.210	24.448	63186	25	14.626	2.184
																				62971	8	14.626	8.515	63045	8	14.014	16.580	63119	10	10.058	24.762	63187	13	15.980	2.752
																				62972	12	8.249	9.406	63046	11	17.682	16.570	63120	8	10.120	24.979	63188	18	16.242	2.589
																				62973*	43	8.492	9.350	63047	12	19.096	16.020	63121	12	13.056	24.044	63189	17	17.008	2.486
																				62974	9	9.422	9.279	63048	10	2.456	17.320	63122	8	13.780	24.252	63190	8	19.920	2.746
																				62975	10	13.557	9.730	63049	8	4.690	17.430	63123	10	14.204	24.912	63191*	58	20.786	2.524
																				62976	8	19.776	9.291	63050	19	11.504	17.930	63124	10	20.264	24.503	63192	8	22.440	2.644
																				62977	9	23.496	9.093	63051	10	14.853	17.757	63125	8	24.942	24.646	63193	29	22.702	2.870
																				62978	8	23.649	9.511	63052	8	18.220	17.011	63126	10	1.910	25.611	63194	8	23.606	2.232
<div>R.A. 20<sup>h</sup> 52<sup>m</sup></div> <div>Plate 753 ; 1916 Aug. 30.</div> <div>Provisional Constants.</div> <div>A      B      C</div> <div>-02574 +00239 +2100</div> <div>D      E      F</div> <div>-00260 -02574 -1616</div> <div>Mag.=17.1-1.09√d</div>																				62979	8	25.852	9.244	63053	12	20.500	17.810	63127	8	4.810	25.586	63195	8	25.974	2.073
																				62980	8	0.722	10.658	63054	8	21.790	17.310	63128	8	11.288	25.276	63196	49	0.042	3.720
																				62981	8	1.957	10.843	63055*	20	22.042	17.158	63129	8	18.786	25.562	63197	12	0.322	3.654
																				62982	8	7.646	10.997	63056	12	23.124	17.664	63130	13	19.634	25.155	63198	8	2.716	3.916
																				62983*	20	8.000	10.760	63057	8	23.290	17.602	63131	8	20.496	25.527	63199	10	4.879	3.784
																				62984	9	11.383	10.297	63058	10	2.362	18.903	63132	9	20.670	25.808	63200	8	5.184	3.279
																				62985	11	16.767	10.024	63059	12	3.177	18.646	63133	12	20.944	25.568	63201	12	7.700	3.100
																				62986*	25	16.886	10.165	63060	11	3.431	18.399	63134	10	21.635	25.048	63202	8	9.506	3.455
																				62987	13	21.360	10.550	63061	10	3.618	18.733	63135	9	21.817	25.968	63203	8	10.526	3.953
																				62988	16	3.686	11.660	63062*	34	4.119	18.960	<div>R.A. 20<sup>h</sup> 52<sup>m</sup></div> <div>Plate 753 ; 1916 Aug. 30.</div> <div>Provisional Constants.</div> <div>A      B      C</div> <div>-02574 +00239 +2100</div> <div>D      E      F</div> <div>-00260 -02574 -1616</div> <div>Mag.=17.1-1.09√d</div>				63204*	70	10.566	3.537
62989*	48	8.746	11.386	63063	8	8.042	18.830	63205	12	11.456	3.971																								
62990	8	9.004	11.416	63064	8	15.295	18.180	63206	11	13.056	3.446																								
62991	11	10.289	11.048	63065	14	18.294	18.718	63207	9	15.356	3.136																								
62992	13	11.672	11.177	63066	12	24.413	18.515	63208	13	16.896	3.912																								
62993	9	12.570	11.085	63067	8	24.994	18.660	63209	21	17.005	3.718																								
62994	15	12.954	11.795	63068	11	25.634	18.924	63210	10	17.404	3.660																								
62995*	16	14.068	11.747	63069	10	2.354	19.751	63211	11	18.271	3.275																								
62996	14	19.235	11.354	63070	10	4.216	19.550	63212	14	20.176	3.149																								
62997*	16	19.256	11.344	63071	10	4.828	19.310	63213*	60	21.840	3.390																								
<div>R.A. 20<sup>h</sup> 52<sup>m</sup></div> <div>Plate 753 ; 1916 Aug. 30.</div> <div>Provisional Constants.</div> <div>A      B      C</div> <div>-02574 +00239 +2100</div> <div>D      E      F</div> <div>-00260 -02574 -1616</div> <div>Mag.=17.1-1.09√d</div>																				62998	8	20.568	11.434	63072*	17	5.657	19.652	63214	15	22.440	3.256				
																				62999	8	21.154	11.922	63073	14	10.704	19.459	63215	10	23.296	3.732				
																				63000	10	23.660	11.840	63074	10	11.448	19.829	63216	10	24.054	3.512				
																				63001	8	0.807	12.939	63075	8	15.176	19.048	63217	8	25.4					



63226	8	16.654	4.476	63300	17	10.922	9.968	63374	20	14.228	14.694	63448	11	25.774	19.983	63522	8	0.350	24.833
63227	15	16.878	4.553	63301	13	11.509	9.480	63375	12	14.928	14.454	63449	52	0.782	20.650	63523	10	2.121	24.884
63228	9	17.194	4.374	63302	9	12.218	9.267	63376	13	18.316	14.893	63450	8	4.337	20.146	63524	14	4.965	24.718
63229*	42	20.528	4.259	63303	8	13.272	9.987	63377	25	20.536	14.015	63451	8	5.525	20.758	63525	42	5.116	24.094
63230	37	20.963	4.353	63304	10	14.850	9.666	63378	9	24.344	14.716	63452	22	6.636	20.126	63526	10	5.346	24.704
63231	40	21.319	4.916	63305	25	16.012	9.676	63379	8	24.600	14.866	63453	10	8.642	20.180	63527	14	9.594	24.884
63232	46	22.103	4.966	63306	8	20.321	9.762	63380	10	24.755	14.839	63454	10	10.180	20.116	63528	12	10.786	24.432
63233	29	22.304	4.692	63307*	43	20.915	9.646	63381	29	24.883	14.538	63455	23	12.228	20.801	63529	32	11.610	24.886
63234	19	22.990	4.342	63308	9	24.984	9.356	63382*	47	1.920	15.593	63456	8	12.803	20.244	63530	10	11.614	24.100
63235	14	1.330	5.736	63309	10	5.040	10.366	63383	10	4.404	15.426	63457	12	13.621	20.455	63531	8	16.773	24.189
63236	10	2.054	5.026	63310	8	5.648	10.693	63384	8	7.853	15.532	63458	10	13.735	20.603	63532	8	18.202	24.366
63237	8	2.519	5.735	63311	9	5.975	10.526	63385	10	10.774	15.434	63459	35	18.764	20.153	63533	22	18.271	24.684
63238	10	3.800	5.816	63312	10	7.547	10.208	63386	8	15.172	15.513	63460*	60	19.518	20.404	63534	10	19.122	24.327
63239	32	5.327	5.726	63313*	46	12.501	10.504	63387	9	17.710	15.935	63461	31	20.529	20.614	63535*	42	19.650	24.336
63240*	42	6.718	5.816	63314*	51	14.168	10.406	63388*	75	18.059	15.604	63462	40	21.322	20.798	63536	52	21.164	24.758
63241	10	6.752	5.858	63315*	47	16.115	10.112	63389	12	23.130	15.983	63463	18	21.408	20.406	63537	8	23.010	24.956
63242	8	11.294	5.084	63316	16	17.726	10.652	63390	9	23.684	15.347	63464	8	21.390	20.088	63538	12	23.616	24.264
63243*	117	13.116	5.651	63317	8	18.458	10.668	63391*	52	23.822	15.366	63465	11	22.696	20.476	63539	10	25.965	24.965
63244	10	15.400	4.177	63318	27	21.555	10.013	63392	12	24.834	15.670	63466	13	0.644	21.144	63540	10	4.671	25.834
63245	38	15.910	5.156	63319	8	22.330	10.730	63393	8	1.814	16.185	63467	8	1.120	21.910	63541	10	5.674	25.798
63246	8	16.344	5.485	63320	10	23.784	10.855	63394	8	2.837	16.312	63468	34	2.258	21.988	63542	23	8.642	25.680
63247	22	19.821	5.047	63321*	58	24.110	10.464	63395	10	7.973	16.616	63469	31	3.184	21.622	63543	8	9.358	25.274
63248	8	20.524	5.110	63322	25	1.377	11.736	63396	8	8.606	16.740	63470	8	3.407	21.239	63544	25	10.225	25.135
63249	10	20.579	5.569	63323*	40	6.408	11.734	63397	14	9.070	16.000	63471	24	10.916	21.071	63545	21	10.301	25.656
63250	10	23.034	5.250	63324	11	7.789	11.978	63398	10	13.288	16.096	63472	9	14.775	21.954	63546	44	12.630	25.555
63251	10	23.498	5.882	63325	8	10.023	11.193	63399	10	16.970	16.480	63473	10	15.336	21.015	63547	12	13.924	25.401
63252	8	24.432	5.224	63326	8	10.462	11.834	63400	13	25.429	16.636	63474	31	17.354	21.044	63548	20	14.980	25.401
63253	20	1.290	6.714	63327	19	10.596	11.202	63401	25	0.887	17.516	63475	10	18.522	21.594	63549	33	16.210	25.996
63254	11	1.726	6.366	63328	8	13.680	11.692	63402	8	1.050	17.454	63476	39	18.962	21.664	63550	8	16.198	25.368
63255	8	2.576	6.342	63329	32	22.022	11.854	63403	8	1.388	17.476	63477	8	19.366	21.966	63551	10	19.706	25.755
63256	8	3.014	6.562	63330	24	25.414	11.383	63404	12	4.535	17.422	63478	10	20.364	21.208	63552	33	21.994	25.436
63257	8	4.308	6.625	63331	12	25.801	11.328	63405	17	5.042	17.680	63479	27	20.740	21.516	63553	10	25.136	25.916
63258*	40	6.050	6.770	63332	12	2.956	12.200	63406	22	5.052	17.976	63480	8	21.678	21.092				
63259	9	6.702	6.744	63333	10	3.072	12.955	63407	27	5.654	17.864	63481	10	21.695	21.363				
63260	8	7.216	6.663	63334	8	5.876	12.274	63408	13	6.826	17.796	63482	19	21.775	21.572				
63261	28	7.608	6.590	63335	10	7.128	12.646	63409	10	8.516	17.215	63483	40	23.152	21.730				
63262	10	10.094	6.396	63336	8	7.246	12.108	63410	35	11.029	17.984	63484	10	23.976	21.819				
63263	8	10.296	6.192	63337	8	9.698	12.548	63411	10	11.825	17.108	63485	31	24.548	21.799				
63264	10	13.427	6.849	63338	16	12.614	12.352	63412	12	14.032	17.048	63486	26	0.828	22.353				
63265	8	16.034	6.286	63339	10	13.096	12.036	63413*	60	14.966	17.191	63487	25	4.321	22.033				
63266	11	16.902	6.514	63340	8	18.294	12.892	63414	10	19.845	17.539	63488	25	5.059	22.787				
63267	12	17.184	6.342	63341	29	21.134	12.994	63415	9	20.476	17.447	63489	8	8.814	22.104				
63268	9	17.950	6.306	63342	9	23.360	12.696	63416	9	20.724	17.118	63490	8	10.580	22.912				
63269	8	19.800	6.635	63343	9	25.185	12.614	63417	37	21.194	17.994	63491	31	15.038	22.951				
63270	8	20.716	6.595	63344	8	0.843	13.860	63418	9	23.669	17.459	63492	8	16.709	22.429				
63271	12	21.275	6.424	63345	40	2.306	13.687	63419	8	23.784	17.524	63493	9	17.589	22.640				
63272	8	1.863	7.476	63346	8	4.678	13.022	63420	8	1.946	18.217	63494	9	17.794	22.374				
63273	10	3.904	7.738	63347	36	4.712	13.276	63421	25	2.173	18.352	63495*	48	18.528	22.477				
63274	9	5.034	7.627	63348	40	5.910	13.074	63422	13	2.750	18.494	63496	8	19.418	22.328				
63275*	60	11.764	7.304	63349*	44	6.592	13.078	63423	8	2.827	18.098	63497	8	24.826	22.505				
63276	8	12.272	7.313	63350	10	6.808	13.807	63424	14	3.388	18.748	63498	13	0.594	23.776				
63277	20	14.898	7.214	63351	25	7.254	13.173	63425	12	4.936	18.675	63499	36	1.374	23.657				
63278	8	14.926	7.143	63352	8	8.546	13.872	63426*	85	7.785	18.284	63500	8	1.386	23.227				
63279	28	16.203	7.385	63353	8	8.574	13.156	63427	10	8.272	18.192	63501	8	2.356	23.805				
63280	23	16.905	7.388	63354	38	10.667	13.452	63428	8	8.473	18.262	63502	24	3.377	23.727				
63281	8	19.476	7.278	63355	24	12.244	13.672	63429	8	9.410	18.809	63503	9	4.060	23.568				
63282	9	20.180	7.236	63356	28	12.528	13.474	63430	21	16.230	18.404	63504	8	5.228	23.584				
63283	23	20.896	7.491	63357	10	14.547	13.177	63431	10	16.322	18.400	63505	16	5.358	23.001				
63284	14	21.701	7.544	63358*	49	14.586	13.409	63432	10	17.306	18.576	63506	8	7.362	23.566				
63285	20	22.551	7.946	63359	11	17.666	13.404	63433	40	23.286	18.502	63507	19	9.662	23.901				
63286	38	6.054	8.777	63360	8	17.996	13.560	63434	29	23.388	18.866	63508*	42	10.999	23.025				
63287	8	10.201	8.723	63361	52	20.052	13.198	63435	10	25.136	18.135	63509	13	14.388	23.477				
63288	25	14.053	8.454	63362	16	20.359	13.546	63436	11	1.134	19.570	63510	11	14.816	23.269				
63289	31	16.385	8.556	63363	10	21.476	13.424	63437	14	1.596	19.763	63511	8	19.644	23.194				
63290	9	19.355	8.707	63364	11	21.922	13.330	63438*	46	2.100	19.734	63512	8	19.800	23.076				
63291	9	24.944	8.886	63365	29	22.481	13.258	63439	40	4.788	19.086	63513	12	20.850	23.522				
63292	12	1.198	9.008	63366	8	22.986	13.662	63440	22										



63617	33	22.290	1.446	63691	16	12.354	6.934	63765	40	15.574	11.911	63839	8	22.195	15.154	63913	32	16.364	20.866
63618	44	23.695	1.812	63692	26	13.660	3.300	63766*	62	15.788	11.872	63840	8	22.326	15.934	63914	21	17.812	20.806
63619	35	24.484	1.588	63693	25	15.113	6.775	63767	36	16.916	11.766	63841	11	24.670	15.025	63915	29	18.504	20.465
63620	12	24.700	1.440	63694	45	15.524	6.421	63768	44	17.878	11.726	63842	9	25.916	15.758	63916	33	19.096	20.875
63621	16	0.885	2.461	63695	8	16.054	6.465	63769*	51	17.976	11.176	63843	10	0.037	16.792	63917*	46	21.456	20.538
63622	10	3.256	2.264	63696	34	16.798	6.833	63770	43	18.288	11.483	63844	35	0.644	16.217	63918	31	23.368	20.850
63623	9	3.664	2.556	63697	11	17.222	6.963	63771	41	19.912	11.508	63845	35	2.955	16.831	63919	37	23.692	20.774
63624	18	4.048	2.390	63698	8	21.121	6.491	63772	16	0.816	12.926	63846	38	4.645	16.350	63920	48	24.912	20.282
63625	9	6.036	2.398	63699	12	21.578	6.787	63773	9	2.644	12.810	63847	31	6.524	16.156	63921	46	0.759	21.962
63626	10	6.796	2.047	63700	40	22.928	6.467	63774	31	3.516	12.028	63848	26	8.682	16.871	63922	8	3.536	21.215
63627	49	10.546	2.811	63701	16	24.474	6.955	63775	36	3.773	12.244	63849	8	8.832	16.079	63923	10	6.722	21.765
63628	41	11.300	2.132	63702	8	25.776	6.660	63776	36	5.895	12.966	63850	27	9.086	16.236	63924	33	7.716	21.034
63629	12	13.460	2.900	63703	8	3.437	7.139	63777	17	7.156	12.852	63851	17	11.024	16.203	63925*	44	7.996	21.616
63630	28	14.464	2.311	63704	25	3.833	7.028	63778	19	9.850	12.506	63852	8	11.774	16.874	63926	8	8.074	21.738
63631*	83	17.255	2.533	63705	16	7.464	7.850	63779	31	11.260	12.966	63853	40	13.115	16.207	63927	10	9.946	21.208
63632	11	19.643	2.447	63706	15	8.750	7.966	63780	34	11.780	12.765	63854	23	14.187	16.740	63928	17	10.048	21.606
63633	20	20.916	2.201	63707	41	8.914	7.214	63781	8	14.405	12.534	63855	9	15.904	16.652	63929	28	12.094	21.466
63634	42	22.914	2.331	63708	10	11.702	7.756	63782	20	14.776	12.162	63856	12	17.397	16.053	63930	25	15.064	21.514
63635	41	23.144	2.362	63709	26	12.502	7.234	63783	35	14.878	12.452	63857	40	19.754	16.054	63931	44	16.344	21.976
63636	12	23.390	2.832	63710	42	13.446	7.314	63784	24	16.034	12.686	63858	24	20.725	16.966	63932	14	16.384	21.133
63637	13	24.802	2.556	63711	36	16.885	7.994	63785	10	17.506	12.245	63859	8	21.370	16.202	63933	9	16.576	21.656
63638	8	25.198	2.890	63712	9	17.774	7.964	63786	11	18.652	12.550	63860	9	22.066	16.344	63934	11	18.252	21.583
63639	84	25.516	2.055	63713	33	21.809	7.372	63787	18	19.712	12.354	63861	21	23.321	16.718	63935	8	18.447	21.504
63640	20	0.604	3.967	63714*	68	22.784	7.400	63788	41	20.112	12.514	63862	9	23.969	16.009	63936	11	20.092	21.466
63641	28	1.358	3.732	63715	37	22.800	7.185	63789	33	20.578	12.070	63863	21	1.206	17.686	63937	25	21.799	21.754
63642	21	2.699	3.334	63716	45	24.190	7.008	63790*	78	23.453	12.744	63864	14	1.324	17.748	63938	37	22.296	21.934
63643	32	2.774	3.822	63717	24	6.144	8.606	63791	10	23.480	12.032	63865	25	4.706	17.966	63939	41	22.986	21.966
63644	44	4.512	3.504	63718	30	7.835	8.710	63792	28	0.464	13.903	63866	18	6.074	17.104	63940	31	23.890	21.726
63645*	47	9.234	3.098	63719	37	8.373	8.082	63793	34	9.935	13.664	63867	9	12.306	17.401	63941	27	1.590	22.036
63646	41	14.688	3.984	63720	40	8.504	8.662	63794	8	11.714	13.612	63868*	51	12.705	17.590	63942	40	2.156	22.006
63647	22	16.622	3.929	63721*	80	11.266	8.064	63795	18	13.322	13.308	63869	29	18.034	17.542	63943	9	2.452	22.710
63648	32	16.766	3.303	63722	8	12.714	8.485	63796	43	13.424	13.858	63870	42	20.763	17.054	63944	43	4.111	22.322
63649	39	17.180	3.028	63723	43	12.778	8.951	63797	17	19.470	13.595	63871	43	23.564	17.244	63945	10	6.032	22.906
63650	8	20.576	3.465	63724	29	13.850	8.056	63798	10	23.445	13.500	63872	45	0.840	18.734	63946*	80	6.453	22.736
63651	22	22.425	3.726	63725	17	15.794	8.530	63799	9	23.618	13.054	63873	8	2.064	18.248	63947	8	8.050	22.062
63652	11	24.080	3.606	63726	22	16.845	8.928	63800	8	25.552	13.038	63874	20	2.686	18.335	63948	19	8.448	22.186
63653	34	0.307	4.578	63727	40	17.958	8.104	63801	11	1.834	14.926	63875	34	4.900	18.562	63949	30	10.154	22.394
63654	41	3.320	4.475	63728	12	23.456	8.606	63802	8	1.900	14.878	63876	9	5.830	18.300	63950	31	11.970	22.672
63655	12	6.130	4.614	63729	23	24.750	8.597	63803	38	2.374	14.740	63877	34	7.634	18.916	63951	27	14.839	22.220
63656	15	9.126	4.082	63730	19	24.844	8.496	63804	44	2.577	14.774	63878	9	12.566	18.280	63952	28	17.558	22.085
63657	19	9.645	4.014	63731	16	25.049	8.608	63805	9	3.418	14.370	63879	37	12.626	18.943	63953*	120	18.754	22.552
63658	41	10.946	4.416	63732	13	2.338	9.093	63806	33	5.392	14.732	63880	8	13.408	18.052	63954	13	0.704	23.778
63659	11	11.390	4.142	63733	27	2.386	9.563	63807	41	7.472	14.574	63881	15	19.066	18.558	63955	38	3.600	23.613
63660	33	12.266	4.494	63734	33	3.788	9.004	63808	41	7.756	14.786	63882	39	21.066	18.190	63956	39	3.774	23.250
63661	23	12.488	4.224	63735*	44	4.874	9.967	63809	9	8.914	14.194	63883	8	22.723	18.960	63957	39	4.394	23.398
63662*	47	16.370	4.295	63736	16	7.936	9.527	63810	28	9.276	14.965	63884	20	22.902	18.615	63958	37	4.615	23.905
63663	42	19.834	4.930	63737	38	8.713	9.065	63811	26	9.538	14.678	63885	18	24.822	18.864	63959	18	5.201	23.156
63664	12	21.096	4.956	63738	37	10.177	9.534	63812	11	11.626	14.856	63886	38	0.951	19.096	63960	35	5.251	23.714
63665	20	22.309	4.098	63739	22	13.085	9.036	63813	14	13.572	14.836	63887	29	3.730	19.066	63961*	56	9.328	23.472
63666	24	22.402	4.028	63740	19	19.044	9.206	63814	43	15.866	14.196	63888*	49	7.786	19.320	63962	41	10.810	23.097
63667	8	23.900	4.955	63741	38	20.074	9.816	63815	26	18.428	14.927	63889	35	8.788	19.874	63963	42	12.162	23.032
63668	21	25.316	4.895	63742	36	20.440	9.900	63816	28	18.624	14.106	63890	39	10.356	19.556	63964	19	13.502	23.688
63669	24	0.368	5.490	63743	45	21.824	9.608	63817	12	19.140	14.094	63891*	84	10.682	19.147	63965	38	16.816	23.170
63670	9	1.764	5.438	63744	40	24.008	9.725	63818	41	19.380	14.014	63892	40	11.123	19.678	63966	41	17.030	23.074
63671	23	5.590	5.334	63745	10	24.020	9.514	63819*	84	20.098	14.026	63893	41	11.556	19.195	63967	42	18.766	23.184
63672	9	10.583	5.185	63746	21	24.025	9.744	63820	23	21.226	14.521	63894	9	12.086	19.140	63968	38	19.229	23.487
63673	36	10.590	5.676	63747*	51	1.524	10.680	63821	34	23.998	14.755	63895	9	12.404	19.866	63969	36	1.270	24.488
63674	40	11.400	5.434	63748	27	5.192	10.480	63822	36	25.066	14.596	63896	29	13.234	19.438	63970	44	1.548	24.100
63675	29	14.257	5.765	63749	24	6.102	10.575	63823	41	25.876	14.116	63897	24	13.597	19.106	63971*	50	4.053	24.312
63676	15	14.356	5.651	63750	44	7.403	10.996	63824	15	1.186	15.572	63898*	170	13.716	19.941	63972	24	5.708	24.130
63677	25	16.228	5.196	63751*	76	9.253	10.558	63825*	58	1.321	15.589	63899	30	13.836	19.335	63973	40	8.130	24.797
63678	41	16.231	5.986	63752	14	10.176	10.333	63826	15	2.092	15.076	63900	32	16.144	19.486	63974	36	9.973	24.476
63679	41	16.552	5.681	63753	36	13.978	10.096	63827	23	2.249									



63987	25	23.186	24.579	64080*	68	10.584	3.708	64154	8	22.345	11.054	64228	10	21.664	19.511
63988	20	24.770	24.652	64081	13	12.026	3.802	64155	8	23.204	11.655	64229	45	23.912	19.295
63989	8	0.678	25.192	64082	28	13.798	3.930	64156	32	23.332	11.645	64230	12	25.250	19.393
63990	23	3.634	25.152	64083	40	16.954	3.096	64157	38	23.754	11.160	64231	40	25.354	19.156
63991	31	4.866	25.199	64084	42	19.909	3.498	64158	49	25.126	11.942	64232	49	25.944	19.498
63992	8	5.784	25.623	64085	43	20.934	3.897	64159*	87	1.410	12.712	64233	10	1.393	20.822
63993	20	6.786	25.004	64086	8	0.214	4.074	64160	44	5.033	12.350	64234	39	1.716	20.740
63994	44	7.024	25.446	64087	9	0.306	4.006	64161	48	5.352	12.752	64235*	51	2.928	20.236
63995	37	10.215	25.572	64088	9	3.224	4.853	64162	8	6.308	12.374	64236	9	4.814	20.526
63996	8	16.245	25.268	64089	23	10.348	4.726	64163	49	9.558	12.380	64237	38	7.296	20.946
63997	31	17.300	25.607	64090	8	11.888	4.944	64164	45	10.994	12.334	64238*	58	14.681	20.356
63998	16	17.552	25.543	64091	33	17.860	4.050	64165	47	16.943	12.234	64239	12	15.054	20.976
63999	12	18.880	25.643	64092	9	17.979	4.684	64166	8	17.672	12.272	64240	43	18.664	20.260
64000	39	19.350	25.926	64093	13	18.566	4.018	64167	44	18.664	12.044	64241*	49	22.522	20.112
64001	34	19.515	25.408	64094	9	20.207	4.964	64168	31	19.139	12.905	64242	33	0.330	21.913
64002	31	23.699	25.092	64095*	84	25.136	4.234	64169	35	20.929	12.746	64243	41	1.017	21.938
64003	42	24.105	25.375	64096	33	1.955	5.036	64170	40	20.931	12.134	64244	23	1.924	21.692
64004	31	24.386	25.810	64097	40	3.354	5.884	64171	8	21.074	12.898	64245	23	4.656	21.142
64005	12	24.814	25.948	64098	10	4.384	5.786	64172	32	21.894	12.068	64246	13	6.116	21.816
64006	35	25.047	25.981	64099	11	5.384	5.327	64173	8	22.192	12.380	64247	45	10.965	21.238
				64100	33	5.976	5.414	64174	24	12.521	13.004	64248	43	11.680	21.438
				64101	10	6.775	5.334	64175	49	14.364	13.602	64249	28	12.596	21.834
				64102*	63	6.890	5.786	64176	8	18.652	13.676	64250	38	12.799	21.258
				64103	13	8.888	5.976	64177	36	18.796	13.592	64251	8	12.854	21.074
				64104*	52	18.288	5.292	64178	40	1.982	14.722	64252	9	13.253	21.071
				64105	15	18.600	5.074	64179	36	3.046	14.552	64253*	120	17.354	21.220
				64106	12	23.062	5.506	64180	40	3.853	14.067	64254	34	17.782	21.689
				64107*	45	23.396	5.222	64181	34	12.915	14.214	64255	9	18.478	21.976
				64108	39	0.845	6.440	64182	8	19.628	14.970	64256	35	20.400	21.870
				64109	47	2.108	6.976	64183	9	1.963	15.977	64257	42	20.780	21.014
				64110	44	4.964	6.926	64184	12	4.495	15.272	64258	14	25.454	21.339
				64111	35	5.027	6.074	64185	47	5.678	15.484	64259	11	4.489	22.809
				64112	16	17.884	6.266	64186	8	6.120	15.424	64260	10	5.064	22.726
				64113	37	18.330	6.384	64187	49	13.484	15.384	64261*	58	5.134	22.744
				64114*	82	18.718	6.550	64188	45	24.516	15.841	64262	40	11.686	22.835
				64115	28	20.734	6.914	64189	9	1.316	16.686	64263	39	12.564	22.190
				64116	17	20.745	6.544	64190*	88	4.116	16.701	64264	38	14.882	22.712
				64117	16	20.748	6.326	64191	44	4.316	16.101	64265	40	22.422	22.444
				64118	47	24.856	6.996	64192	47	11.744	16.171	64266	29	5.386	23.354
				64119	63	0.703	7.374	64193	23	13.226	16.089	64267	37	5.404	23.854
				64120	25	0.724	7.156	64194	8	21.924	16.107	64268	46	7.958	23.640
				64121*	46	4.789	7.524	64195	45	22.132	16.960	64269	39	8.414	23.252
				64122	46	9.222	7.214	64196	47	22.522	16.819	64270	8	10.682	23.387
				64123	12	14.506	7.118	64197	10	23.953	16.176	64271	39	11.140	23.214
				64124	9	17.838	7.709	64198	46	1.564	17.209	64272	10	12.186	23.206
				64125	43	21.954	7.736	64199	11	4.316	17.204	64273	8	13.521	23.818
				64126	36	23.427	7.264	64200	8	5.539	17.928	64274*	76	13.664	23.790
				64127	31	23.846	7.616	64201	44	7.524	17.647	64275*	50	16.975	23.900
				64128	30	24.312	7.160	64202	41	7.858	17.736	64276	8	17.564	23.267
				64129	8	2.686	8.555	64203*	54	10.294	17.318	64277	41	17.947	23.573
				64130	8	2.781	8.456	64204	10	11.652	17.656	64278	31	22.138	23.382
				64131	8	2.985	8.566	64205	50	11.946	17.498	64279	8	24.151	23.323
				64132	8	5.098	8.416	64206	48	13.013	17.274	64280	48	0.136	24.266
				64133	13	9.008	8.058	64207	11	17.160	17.856	64281	34	1.241	24.549
				64134	8	11.843	8.480	64208	8	18.494	17.844	64282	11	2.826	24.614
				64135	14	19.008	8.801	64209	10	23.172	17.298	64283	48	4.800	24.697
				64136	41	21.488	8.014	64210	12	23.588	17.477	64284	42	6.108	24.008
				64137	11	22.186	8.064	64211	11	23.600	17.196	64285	42	6.865	24.406
				64138	43	22.493	8.399	64212	41	24.074	17.128	4286	15	6.964	24.129
				64139	33	23.532	8.515	64213	8	25.902	17.738	64287	9	10.765	24.218
				64140	8	23.909	8.535	64214	8	2.834	18.824	64288	23	12.808	24.032
				64141	42	1.954	9.694	64215	12	9.086	18.594	64289	80	14.188	24.322
				64142	39	13.320	9.643	64216	47	12.520	18.496	64290	47	20.269	24.394
				64143	50	18.190	9.856	64217	39	15.428	18.478	64291	38	22.835	24.864
				64144	42	1.156	10.614	64218	42	15.744	18.492	64292	34	23.862	24.448
				64145*	55	6.526	10.086	64219	9	18.434	18.932	64293	37	1.758	25.062
				64146	16	7.124	10.970	64220	48	18.798	18.424	64294	48	2.164	25.340
				64147	8	7.138	10.156	64221	17	23.362	18.992	64295	42	2.450	25.772
				64148	25	13.450	10.385	64222	34	23.415	18.420	64296	8	2.881	25.904
				64149	8	18.828	10.492	64223	8	2.336	19.548	64297	40	3.113	25.937
				64150	11	22.431	10.036	64224*	49	11.256	19.265	64298	23	4.936	25.785
				64151	47	7.538	11.471	64225	15	12.566	19.665	64299	39	7.064	25.642
				64152	34	12.106	11.714	64226*	52	16.382	19.736	64300	27	18.094	25.162
				64153	46	21.263	11.408	64227	12	16.424	19.337	64301	28	21.403	25.594

R.A. 21<sup>h</sup> 16<sup>m</sup>

Plate 746; 1916 July 22.

Provisional Constants.

A B C  
 -0.2555 +0.00515 +0.0962

D E F  
 -0.00504 -0.02594 -0.2082

Mag. = 16.6 - 1.09√d

No.	d	x	y
64350	8	2.784	0.880
64351	14	6.030	0.384
64352	12	8.574	0.802
64353	15	9.069	0.592
64354	12	13.204	0.980
64355	22	14.869	0.792
64356	27	22.223	0.089
64357	10	3.388	1.258
64358	8	6.856	1.344
64359	21	8.531	1.248
64360	11	9.454	1.722
64361	13	10.363	1.338
64362	9	10.391	1.298
64363	13	15.223	1.300
64364	29	21.060	1.370
64365	15	23.150	1.952
64366	8	3.202	2.815
64367	18	3.996	2.805
64368	8	4.939	2.186
64369	9	5.322	2.626
64370	10	9.998	2.725
64371	8	12.421	2.111
64372	36	13.846	2.281
64373*	34	14.270	2.327
64374	8	14.681	2.787
64375	34	17.875	2.197
64376	8	21.203	2.413
64377	12	5.709	3.902
64378	9	7.050	3.587
64379	10	10.588	3.155
64380	14	10.935	3.870
64381	10	13.037	3.481
64382	8	22.830	3.625
64383	19	23.418	3.533
64384*	57	2.445	4.396
64385	14	3.768	4.510
64386	18	4.451	4.389
64387	8	5.470	4.354
64388	8	6.068	4.568
64389	33	8.982	4.148
64390	8	15.030	4.880
64391	12	15.068	4.920
64392	12	16.018	4.393
64393	11	17.964	4.008
64394	29	18.422	4.290
64395	17	20.924	4.376
64396	9	0.390	5.687
64397*	28	0.718	5.399
64398	20	5.362	5.409
64399	21	5.583	5.808
64400	9	5.806	5.602
64401	25	6.740	5.046
64402	12	8.931	5.110
64403	10	9.650	5.910
64404	9	11.884	5.270
64405*	38	13.529	5.408



64406	13	13.918	5.296	64480	9	17.839	11.309	64554	12	1.017	17.651	64628	25	24.664	21.863
64407	17	14.977	5.967	64481	16	19.210	11.111	64555	10	1.028	17.370	64629	8	1.642	22.288
64408	8	15.852	5.700	64482	8	19.413	11.342	64556	18	1.500	17.298	64630	9	2.082	22.812
64409	14	17.537	5.166	64483	24	19.720	11.206	64557	10	3.334	17.892	64631*	76	3.602	22.787
64410*	39	22.381	5.480	64484	14	19.966	11.311	64558	23	4.824	17.068	64632	8	4.118	22.486
64411	9	7.284	6.650	64485	11	20.276	11.646	64559	12	5.102	17.006	64633	21	5.143	22.211
64412	32	15.171	6.301	64486	14	21.184	11.797	64560	13	6.183	17.252	64634	11	6.658	22.719
64413	13	16.212	6.800	64487	14	21.836	11.501	64561	8	6.711	17.166	64635	19	8.966	22.694
64414	12	18.557	6.353	64488	10	22.324	11.873	64562	8	6.896	17.390	64636	8	9.320	22.888
64415	10	20.305	6.804	64489	12	22.482	11.058	64563*	30	9.340	17.490	64637	11	10.132	22.970
64416*	58	20.678	6.428	64490	17	25.386	11.290	64564	23	9.690	17.169	64638	12	11.179	22.720
64417	9	24.984	6.868	64491	30	2.510	12.102	64565	9	10.877	17.290	64639	15	12.792	22.801
64418	14	25.972	6.858	64492	10	4.079	12.190	64566	18	11.804	17.042	64640	13	13.044	22.156
64419	18	0.768	7.440	64493	27	6.828	12.756	64567	29	14.370	17.812	64641	10	13.450	22.322
64420	13	1.193	7.790	64494	9	10.582	12.139	64568	10	15.558	17.272	64642	12	13.928	22.734
64421	12	1.650	7.330	64495	10	12.971	12.838	64569	12	16.187	17.124	64643	22	14.068	22.650
64422	31	2.192	7.161	64496	10	15.230	12.876	64570	12	16.532	17.193	64644	10	15.434	22.489
64423	31	4.390	7.855	64497	8	16.770	12.526	64571	13	18.046	17.941	64645	15	17.108	22.766
64424*	76	6.350	7.762	64498	21	17.538	12.060	64572	10	18.262	17.782	64646	10	17.782	22.234
64425	18	7.270	7.200	64499	17	19.528	12.010	64573	27	20.827	17.764	64647	21	17.948	22.534
64426	8	12.192	7.870	64500	19	21.204	12.170	64574	30	22.690	17.984	64648	17	22.881	22.352
64427	8	16.178	7.359	64501	8	22.848	12.492	64575	16	22.800	17.633	64649	12	1.632	23.490
64428	9	19.228	7.616	64502	23	24.488	12.196	64576	22	25.188	17.390	64650*	38	4.444	23.610
64429	8	21.232	7.940	64503	26	24.911	12.038	64577	19	0.851	18.594	64651	21	4.912	23.152
64430	8	21.292	7.885	64504	8	0.030	13.410	64578	8	1.475	18.932	64652	18	7.692	23.600
64431	10	21.490	7.001	64505	8	4.324	13.241	64579	32	5.520	18.686	64653	14	8.719	23.896
64432	8	23.634	7.248	64506	9	4.373	13.938	64580	20	5.723	18.225	64654	20	9.498	23.825
64433	9	24.358	7.311	64507	19	5.916	13.433	64581	13	9.162	18.884	64655	13	12.578	23.787
64434	18	24.390	7.036	64508	9	7.226	13.736	64582	29	10.386	18.332	64656	10	12.712	23.530
64435	18	0.886	8.689	64509	9	14.194	13.456	64583	22	11.718	18.160	64657	33	15.664	23.362
64436	8	1.262	8.706	64510	20	18.658	13.842	64584	11	12.018	18.280	64658	12	17.574	23.062
64437	8	2.660	8.254	64511	8	23.640	13.366	64585	12	13.700	18.116	64659	28	19.476	23.537
64438	19	4.796	8.419	64512	27	4.037	14.435	64586	11	15.233	18.772	64660	10	21.799	23.893
64439	12	5.254	8.792	64513	8	4.167	14.348	64587	34	18.073	18.504	64661	14	22.594	23.076
64440	12	6.472	8.812	64514	11	5.837	14.032	64588	22	18.978	18.750	64662	13	1.352	24.619
64441	24	9.710	8.284	64515*	56	7.380	14.760	64589	25	19.971	18.522	64663	15	5.369	24.838
64442	20	12.400	8.358	64516	10	11.176	14.592	64590	22	21.316	18.576	64664	11	5.699	24.522
64443*	72	13.630	8.832	64517	19	12.488	14.226	64591	11	22.697	18.488	64665	8	7.162	24.941
64444	8	21.146	8.472	64518	10	14.412	14.128	64592	13	0.807	19.167	64666	36	7.794	24.802
64445	9	22.636	8.526	64519	12	15.414	14.936	64593	30	1.355	19.467	64667	8	8.670	24.315
64446	29	23.443	8.378	64520	8	18.360	14.184	64594	12	2.694	19.552	64668	11	10.432	24.356
64447	10	24.450	8.758	64521	27	20.430	14.600	64595	20	2.796	19.312	64669	8	12.051	24.947
64448	26	25.465	8.222	64522	18	25.657	14.285	64596	26	3.389	19.649	64670	18	13.858	24.446
64449	15	3.768	9.732	64523	8	0.422	15.873	64597	13	9.137	19.426	64671	12	14.877	24.992
64450	8	5.067	9.117	64524	8	1.512	15.441	64598	14	19.372	19.249	64672	13	15.194	24.461
64451	23	5.441	9.386	64525	9	4.794	15.208	64599	8	22.904	19.081	64673	33	15.671	24.159
64452	14	5.709	9.638	64526	10	6.227	15.474	64600	8	2.081	20.771	64674	14	16.192	24.053
64453	8	7.026	9.172	64527	19	10.512	15.921	64601	14	6.982	20.530	64675	12	19.070	24.163
64454	14	8.240	9.712	64528	12	10.832	15.212	64602	16	7.244	20.650	64676	11	24.376	24.517
64455	32	9.492	9.822	64529	19	12.508	15.310	64603	21	7.385	20.662	64677	13	24.867	24.739
64456	8	9.511	9.023	64530	10	13.862	15.010	64604	12	7.656	20.074	64678	18	0.330	25.043
64457	15	11.592	9.152	64531	9	14.073	15.848	64605	10	8.528	20.498	64679	9	2.282	25.610
64458	9	13.868	9.640	64532*	129	14.747	15.442	64606	12	12.222	20.064	64680	12	5.161	25.787
64459	9	17.796	9.792	64533	19	16.268	15.750	64607	10	12.850	20.998	64681	20	8.761	25.951
64460	10	4.844	10.356	64534	8	16.646	15.450	64608	14	13.251	20.473	64682	21	9.409	25.861
64461	13	5.006	10.619	64535	10	18.504	15.107	64609	8	14.125	20.684	64683	9	11.515	25.390
64462	12	9.779	10.477	64536	29	21.444	15.928	64610	18	14.578	20.136	64684	14	12.588	25.878
64463	13	9.947	10.947	64537	29	24.132	15.012	64611	13	15.341	20.296	64685	22	18.540	25.001
64464	23	12.264	10.081	64538	8	1.037	16.728	64612	10	16.418	20.012	64686	12	22.688	25.440
64465	33	14.782	10.330	64539	9	1.372	16.350	64613	8	17.476	20.638				
64466*	35	19.392	10.822	64540	21	1.930	16.007	64614	17	21.477	20.949				
64467	11	22.135	10.200	64541	8	1.972	16.060	64615	14	2.919	21.494				
64468*	46	22.991	10.418	64542	10	8.024	16.600	64616	14	4.036	21.078				
64469	11	0.584	11.830	64543	10	8.230	16.699	64617	22	4.880	21.142				
64470	15	0.711	11.818	64544	20	8.520	16.120	64618	22	6.543	21.179				
64471	16	1.130	11.332	64545	15	13.440	16.308	64619	28	6.858	21.778				
64472	34	6.460	11.654	64546	8	15.572	16.984	64620	15	7.772	21.519				
64473	19	7.048	11.103	64547	22	17.674	16.006	64621	8	10.236	21.717				
64474	8	7.699	11.474	64548	8	18.716	16.252	64622	8	11.678	21.510				
64475*	52	8.962	11.184	64549	18	20.881	16.614	64623	10	12.456	21.218				
64476	20	11.832	11.673	64550	14	21.536	16.827	64624	11	15.502	21.110				
64477	8	14.900	11.035	64551	13	25.240	16.400	64625	8	16.949	21.372				
64478*	35	16.098	11.992	64552	9	25.408	16.886	64626	11	19.589	21.840				
64479	8	17.390	11.230	64553	12	0.598	17.474	64627	8	21.897	21.694				

R.A. 21<sup>h</sup> 24<sup>m</sup>

Plate 779; 1916 Oct. 25.

Provisional Constants.

A B C  
 -02529 +00648 -0684

D E F  
 -00638 -02569 -0681

Mag. = 16.51 - 0.09√d

No.	d	x	y
64700	15	4.734	0.657
64701	31	7.504	0.306
64702	25	13.197	0.268
64703	28	17.979	0.782
64704	11	21.433	0.457
64705	11	6.237	1.758
64706	10	7.680	1.744
64707	15	8.396	1.774
64708	9	25.704	1.646
64709	11	0.512	2.207
64710	14	3.514	2.283



64756	10	25.838	7.342	64830	12	11.245	15.274	64904	20	4.340	22.800	64969	18	9.608	2.454	65043	15	23.574	11.488
64757	29	0.877	8.630	64831	12	16.658	15.892	64905	23	4.493	22.102	64970	14	11.572	2.545	65044	16	23.763	11.996
64758	19	2.898	8.451	64832	23	20.598	15.676	64906	26	5.279	22.821	64971	14	20.358	2.196	65045	8	0.197	12.401
64759	12	3.772	8.482	64833	10	24.815	15.188	64907	11	5.871	22.658	64972	14	22.683	2.075	65046*	36	4.601	12.484
64760	12	6.034	8.612	64834	14	24.890	15.400	64908	23	13.470	22.407	64973	12	10.307	3.304	65047	8	9.782	12.581
64761	18	6.447	8.172	64835	10	2.773	16.630	64909	11	18.534	22.166	64974	11	10.644	3.275	65048	8	10.754	12.276
64762*	38	8.508	8.798	64836	24	7.464	16.378	64910	13	0.205	23.338	64975	18	11.312	3.144	65049	14	14.416	12.006
64763	10	9.062	8.386	64837	31	7.763	16.253	64911	22	8.420	23.958	64976	14	13.272	3.525	65050	20	18.212	12.794
64764	14	12.018	8.664	64838	38	8.146	16.258	64912	22	11.699	23.318	64977	15	21.414	3.757	65051	15	19.838	12.157
64765	12	12.278	8.103	64839	14	8.258	16.288	64913	9	2.497	24.976	64978	16	25.305	3.606	65052	11	22.773	12.454
64766*	79	24.288	8.292	64840	8	8.487	16.796	64914	14	6.744	24.933	64979	11	8.088	4.443	65053	11	23.924	12.268
64767	9	8.866	9.506	64841*	10	12.154	16.014	64915	10	15.276	24.820	64980	14	10.084	4.924	65054	14	1.035	13.573
64768	30	10.478	9.664	64842	10	12.525	16.394	64916	9	15.754	24.800	64981	11	11.368	4.345	65055	21	11.534	13.036
64769	10	10.698	9.086	64843	37	15.437	16.540	64917	10	16.064	24.616	64982	14	11.476	4.054	65056	12	14.956	13.857
64770	15	14.117	9.301	64844	19	17.592	16.255	64918	20	17.590	24.198	64983	9	13.584	4.968	65057	16	17.616	13.374
64771*	48	14.800	9.508	64845	28	19.786	16.144	64919	22	18.015	24.130	64984	20	17.922	4.686	65058	20	17.788	13.208
64772	49	0.450	10.676	64846	10	22.844	16.195	64920	9	20.542	24.016	64985	12	25.214	4.130	65059	22	18.875	13.034
64773	25	9.557	10.798	64847	20	23.733	16.450	64921	8	21.637	24.892	64986	12	2.438	5.810	65060	14	0.753	14.548
64774	10	15.276	10.248	64848	11	25.150	16.265	64922	42	22.199	24.261	64987	24	2.494	5.262	65061	10	4.919	14.234
64775	12	15.519	10.236	64849	12	25.834	16.814	64923	9	23.227	24.347	64988	18	2.776	5.121	65062*	36	4.966	14.937
64776	8	18.026	10.916	64850	15	0.344	17.892	64924	41	25.252	24.460	64989	13	4.202	5.052	65063*	37	7.646	14.039
64777	17	19.304	10.283	64851	21	2.728	17.622	64925	22	6.184	25.943	64990	14	5.608	5.724	65064*	56	9.603	14.697
64778	16	24.306	10.666	64852	8	5.667	17.213	64926	15	11.182	25.624	64991	16	6.494	5.912	65065	16	16.374	14.608
64779	14	2.856	11.521	64853	31	9.148	17.306	64927	11	12.701	25.174	64992	12	9.446	5.675	65066	21	16.815	14.694
64780	20	4.758	11.106	64854	11	10.702	17.172	64928	10	13.035	25.408	64993	15	13.125	5.366	65067	8	17.576	14.654
64781*	30	5.826	11.022	64855	8	11.834	17.308	64929	15	14.925	25.642	64994	24	24.536	5.276	65068	8	18.106	14.054
64782	15	7.464	11.728	64856	10	12.486	17.831	64930	41	16.833	25.448	64995*	32	1.236	6.872	65069*	180	19.855	14.172
64783	10	7.478	11.905	64857	35	12.746	17.663	64931	10	18.738	25.524	64996	12	1.794	6.483	65070	8	20.102	14.074
64784	32	8.986	11.639	64858	18	13.306	17.452	64932	12	19.871	25.884	64997	10	6.373	6.492	65071	14	21.243	14.486
64785	11	12.224	11.870	64859	13	17.642	17.258	64933	14	21.474	25.183	64998	14	7.140	6.106	65072	11	2.332	15.602
64786	11	12.913	11.347	64860	30	0.236	18.246	64999	10	12.764	6.756	65000	14	12.764	6.756	65073*	12	2.406	15.810
64787	24	15.058	11.156	64861	8	0.250	18.749	65001*	24	13.765	6.124	65002	14	13.765	6.124	65074*	34	3.994	15.114
64788	12	16.852	11.408	64862	11	5.358	18.316	65003	13	19.164	6.434	65004	13	21.182	6.564	65075	34	4.606	15.034
64789	28	19.223	11.150	64863	28	7.228	18.242	65005	15	2.505	7.854	65006	13	2.505	7.854	65076	16	6.235	15.665
64790	10	23.792	11.526	64864	25	8.638	18.143	65007	15	12.324	7.576	65008	13	12.324	7.576	65077	9	8.044	15.530
64791	17	24.811	11.038	64865	19	16.658	18.334	65009	28	17.466	7.514	65010	13	17.466	7.514	65078	8	9.117	15.874
64792	26	25.782	11.065	64866	13	18.601	18.057	65011*	20	20.887	7.444	65012	12	20.887	7.444	65079*	36	21.346	15.426
64793	22	1.970	12.434	64867	8	18.676	18.415	65013	13	22.501	7.668	65014	10	22.501	7.668	65080	17	1.250	16.882
64794	26	2.391	12.272	64868	8	19.096	18.624	65015	10	22.776	7.246	65016*	10	22.776	7.246	65081	13	2.678	16.684
64795	8	3.662	12.363	64869	11	19.582	18.354	65017	12	22.976	7.696	65018*	13	22.976	7.696	65082	20	12.946	16.926
64796	23	5.205	12.273	64870	11	2.734	19.944	65019*	20	1.746	8.654	65020	22	1.746	8.654	65083*	44	15.567	16.516
64797	15	5.672	12.628	64871	13	3.580	19.656	65021	12	8.502	8.393	65022	80	8.502	8.393	65084	8	16.253	16.237
64798	33	6.774	12.863	64872	12	5.913	19.062	65023	11	8.636	8.926	65024	12	8.636	8.926	65085	14	18.844	16.485
64799	23	7.168	12.324	64873	22	7.167	19.777	65025	9	12.814	8.445	65026	11	12.814	8.445	65086	18	21.776	16.604
64800	35	8.146	12.863	64874	16	7.377	19.192	65027	10	15.465	8.208	65028	9	15.465	8.208	65087	18	24.618	16.641
64801	37	9.015	12.923	64875	18	8.680	19.262	65029	14	4.951	9.923	65030	10	4.951	9.923	65088	16	25.804	16.755
64802	17	10.506	12.706	64876*	35	15.278	19.506	65031	10	6.144	9.436	65032	15	6.144	9.436	65089	15	3.374	17.234
64803	9	14.180	12.421	64877	22	15.353	19.227	65033*	48	12.416	9.920	65034	10	12.416	9.920	65090	10	11.274	17.128
64804	10	17.226	12.125	64878	10	19.643	19.349	65035	21	12.584	9.916	65036	15	12.584	9.916	65091	15	11.538	17.192
64805	12	17.727	12.174	64879	12	22.988	19.946	65037	22	13.471	9.305	65038	22	13.471	9.305	65092	23	12.066	17.106
64806	18	3.532	13.558	64880	10	24.131	19.718	65039	42	15.362	9.127	65040	22	15.362	9.127	65093	13	13.692	17.560
64807	22	4.064	13.688	64881	26	25.916	19.044	65041	16	16.804	9.128	65042	15	16.804	9.128	65094	15	15.444	17.534
64808	8	5.384	13.615	64882*	57	4.900	20.801	65043	17	22.355	9.634	65044	13	22.355	9.634	65095	13	19.646	17.451
64809	20	9.564	13.979	64883	11	6.807	20.939	65045	12	24.083	9.904	65046	12	24.083	9.904	65096	12	22.874	17.666
64810	14	12.790	13.330	64884*	54	9.399	20.654	65047	19	4.125	10.594	65048	14	4.125	10.594	65097	30	25.948	17.892
64811	10	13.005	13.756	64885	26	13.600	20.801	65049	8	4.197	10.126	65050	9	4.197	10.126	65098	8	2.162	18.828
64812	22	13.368	13.604	64886	25	14.267	20.832	65051	13	11.086	10.324	65052	8	11.086	10.324	65099	15	19.627	18.353
64813	10	14.138	13.174	64887	8	17.350	20.042	65053	23	11.574	10.866	65054	13	11.574	10.866	65100	11	20.506	18.798
64814	11	17.214	13.348	64888*	58	17.469	20.682	65055	19	11.634	10.866	65056	23	11.634	10.866	65101	12	21.443	18.243
64815	13	20.227	13.832	64889	31	21.912	20.133	65057	10	11.667	10.784	65058	19	11.667	10.784	65102	8	24.567	18.754
64816	17	23.541	13.168	64890	41	25.488	20.704	65059	15	16.632	10.006	65060	10	16.632	10.006	65103	20	3.466	19.477
64817	14	3.164	14.511	64891	26	7.708	21.242	65061	15	16.632	10.006	65062	15	16.632	10.006	65104	15	8.936	19.174
64818	12	5.466	14.536	64892	15	8.538	21.440												



65117	56	25.105	20.833	65208	15	2.298	1.595	65282	13	5.362	10.209	65356	25	19.876	18.078
65118	13	0.622	21.716	65209	8	2.808	1.751	65283	13	8.106	10.293	65357	27	21.794	18.296
65119*	36	3.046	21.155	65210	16	3.846	1.194	65284	28	10.262	10.642	65358	23	1.374	19.540
65120	11	4.150	21.834	65211	24	5.810	1.823	65285	10	13.251	10.128	65359	17	7.094	19.832
65121	8	10.685	21.258	65212	12	6.542	1.274	65286	12	18.342	10.400	65360	28	9.073	19.020
65122	14	16.246	21.466	65213*	42	11.642	1.383	65287	31	18.400	10.960	65361	11	11.794	19.300
65123	14	22.584	21.585	65214	13	14.952	1.187	65288	36	19.164	10.900	65362	9	14.894	19.626
65124	12	23.534	21.202	65215	14	23.736	1.910	65289	16	23.183	10.782	65363	22	15.925	19.198
65125	26	24.625	21.374	65216	28	3.592	2.748	65290	18	25.795	10.472	65364	10	19.584	19.038
65126	11	3.898	22.686	65217	16	9.522	2.286	65291	13	1.277	11.152	65365	11	22.906	19.736
65127	12	4.618	22.932	65218	14	9.579	2.518	65292	24	1.467	11.650	65366	31	24.389	19.526
65128	17	10.800	22.966	65219	13	16.670	2.498	65293	10	1.636	11.917	65367	10	1.356	20.783
65129	30	16.225	22.687	65220	18	2.814	3.827	65294	8	5.376	11.776	65368	32	2.440	20.942
65130	19	17.815	22.266	65221	21	2.900	3.311	65295	10	11.136	11.894	65369*	69	2.905	20.396
65131	15	25.754	22.324	65222*	60	4.538	3.287	65296	10	12.518	11.699	65370	19	4.242	20.134
65132	22	10.444	23.974	65223	16	5.443	3.593	65297	21	18.540	11.376	65371	17	5.812	20.672
65133	22	10.840	23.628	65224	8	9.532	3.405	65298	10	18.616	11.865	65372	11	9.404	20.172
65134	11	13.454	23.294	65225	11	11.454	3.167	65299	10	19.246	11.782	65373	19	15.198	20.970
65135	10	19.154	23.291	65226	15	13.329	3.291	65300	13	22.404	11.113	65374	12	17.207	20.588
65136	22	22.707	23.557	65227	16	13.709	3.644	65301	12	0.494	12.117	65375	20	24.125	20.257
65137	14	0.795	24.846	65228	22	24.984	3.886	65302*	31	4.632	12.610	65376	18	25.416	20.531
65138	34	2.834	24.944	65229	35	2.156	4.972	65303	11	10.056	12.446	65377	14	0.418	21.172
65139	10	5.343	24.438	65230	9	4.012	4.971	65304*	56	10.596	12.231	65378	12	14.371	21.033
65140	14	5.454	24.738	65231	14	5.369	4.189	65305	15	15.330	12.702	65379	13	15.462	21.142
65141	10	5.965	24.263	65232	8	5.389	4.174	65306*	31	16.726	12.365	65380	10	17.698	21.958
65142	12	6.487	24.906	65233	8	6.052	4.586	65307	30	19.758	12.757	65381*	80	18.699	21.237
65143	8	8.295	24.746	65234	14	6.421	4.630	65308	8	21.802	12.813	65382	41	25.946	21.480
65144	15	10.063	24.092	65235	16	7.995	4.810	65309	9	22.048	12.642	65383	9	3.400	22.887
65145	17	11.601	24.056	65236	11	8.576	4.072	65310	36	24.530	12.350	65384	25	4.122	22.341
65146	19	13.692	24.297	65237	8	9.720	4.520	65311	9	3.934	13.384	65385*	45	7.344	22.300
65147	34	22.934	24.664	65238	20	18.694	4.032	65312	25	6.136	13.516	65386	10	7.748	22.494
65148	26	25.676	24.918	65239	22	5.778	5.132	65313	35	12.605	13.015	65387	13	15.384	22.440
65149	8	5.455	25.980	65240	21	7.848	5.600	65314	8	15.962	13.735	65388	21	16.826	22.992
65150	15	13.070	25.667	65241*	84	9.492	5.728	65315	24	20.387	13.277	65389	10	16.762	22.264
65151	22	14.844	25.816	65242	13	10.910	5.207	65316	15	23.908	13.886	65390	17	21.597	22.982
65152	10	16.240	25.169	65243	15	13.368	5.068	65317	25	24.490	13.102	65391	10	23.052	22.436
65153	12	18.536	25.685	65244	13	14.582	5.336	65318	15	11.412	14.830	65392	11	25.056	22.051
65154	24	18.617	25.663	65245	10	21.336	5.240	65319	8	14.282	14.672	65393	25	0.567	23.128
65155	40	21.144	25.246	65246	11	24.300	5.141	65320	12	16.260	14.621	65394	14	8.644	23.646
65156	9	22.272	25.627	65247	14	0.432	6.947	65321	38	4.878	15.248	65395	12	25.391	23.408
65157	15	25.596	25.292	65248	8	2.458	6.502	65322	12	5.085	15.226	65396	37	0.804	24.222
				65249	21	8.024	6.682	65323	23	5.158	15.634	65397	10	1.665	24.450
				65250	14	8.468	6.734	65324	9	6.174	15.632	65398	16	3.455	24.811
				65251*	35	9.452	6.756	65325*	60	18.366	15.000	65399	8	9.254	24.062
				65252	11	12.566	6.566	65326	12	18.638	15.212	65400	21	13.856	24.518
				65253*	44	15.052	6.010	65327	24	20.671	15.954	65401	28	14.386	24.504
				65254	8	15.832	6.200	65328	18	22.475	15.246	65402	10	17.676	24.215
				65255	16	25.486	6.148	65329	29	23.184	15.920	65403	9	19.740	24.690
				65256	8	0.168	7.372	65330	9	25.689	15.968	65404	8	20.092	24.028
				65257	30	0.638	7.394	65331	13	2.380	16.247	65405	11	20.229	24.806
				65258	20	8.903	7.746	65332	19	3.550	16.344	65406	30	20.512	24.994
				65259	19	9.436	7.278	65333*	38	3.842	16.258	65407	12	22.254	24.062
				65260	23	9.850	7.532	65334	17	5.119	16.646	65408	9	24.067	24.706
				65261	20	9.996	7.393	65335	12	7.500	16.276	65409	13	9.832	25.257
				65262	14	10.096	7.418	65336	19	8.062	16.706	65410	38	10.004	25.498
				65263*	200	17.092	7.482	65337	17	10.088	16.097	65411	10	14.522	25.478
				65264*	57	19.463	7.006	65338	9	13.220	16.420	65412	31	17.466	25.170
				65265	11	20.288	7.306	65339	8	19.809	16.482	65413	10	22.687	25.686
				65266	12	22.528	7.119	65340	17	22.056	16.794	65414	8	23.139	25.697
				65267	31	22.970	7.704	65341	22	0.654	17.286				
				65268	21	23.543	7.176	65342	9	3.032	17.506				
				65269	12	5.290	8.792	65343	20	3.375	17.548				
				65270	8	6.082	8.624	65344	38	3.708	17.470				
				65271	13	6.660	8.139	65345	24	8.702	17.758				
				65272	14	11.304	8.799	65346	9	9.424	17.212				
				65273	11	17.382	8.513	65347	23	13.138	17.110				
				65274	10	20.342	8.218	65348	12	17.112	17.294				
				65275	32	22.263	8.731	65349	12	19.422	17.392				
				65276	13	0.042	9.323	65350	17	19.422	17.947				
				65277	14	1.761	9.572	65351	25	22.755	17.318				
				65278	23	3.783	9.802	65352	9	1.814	18.992				
				65279	12	6.974	9.377	65353	15	4.292	18.528				
				65280	15	22.237	9.013	65354	15	13.694	18.202				
				65281	10	2.394	10.361	65355	16	14.300	18.650				

R.A. 21<sup>h</sup> 48<sup>m</sup>

Plate 780 ; 1916 Oct. 25.

Provisional Constants.

A B C  
 -02526 + 00449 + 0744

D E F  
 -00396 - 02594 - 2254

Mag. = 16.6 - 1.09√d

No.	d	x	y
65450	34	8.004	0.594
65451	24	13.224	0.908
65452	18	18.124	0.032
65453*	40	18.756	0.486
65454	32	9.480	1.064
65455	15	13.550	1.186
65456*	48	22.226	1.747
65457	27	22.994	1.006
65458	19	1.238	2.014
65459	10	1.540	2.307
65460	20	9.463	2.323
65461	37	13.561	2.793
65462	16	18.867	2.045
65463*	40	19.138	2.289
65464	14	21.090	2.201
65465	26	2.504	3.980
65466	13	4.086	3.784
65467	13	4.204	3.100
65468	31	10.296	3.800
65469*	37	10.444	3.933
65470	10	15.749	3.855
65471	15	17.846	3.028
65472*	24	21.946	3.933
65473	28	3.940	4.074
65474	15	4.336	4.348
65475	14	9.354	4.173
65476	16	15.448	4.770
65477*	41	21.394	4.540
65478	11	24.718	4.478
65479	9	1.836	5.243
65480	17	5.049	5.852
65481	12	5.584	5.770
65482	25	16.444	5.291
65483	19	21.282	5.584
65484*	41	23.054	5.792
65485	16	3.028	6.238
65486	12	4.342	6.835
65487	19	14.584	6.870
65488	30	21.868	6.159
65489	12	22.172	6.864
65490	37	25.608	6.677
65491	16	0.076	7.234
65492	20	0.524	7.815
65493	20	1.094	7.283
65494	8	6.360	7.040
65495	34	6.588	7.279
65496	15	9.648	7.194
65497	10	12.862	7.162
65498	16	13.314	7.276
65499	22	16.284	7.150
65500	18	18.264	7.392
65501	30	21.224	7.112
65502	15	23.211	7.701
65503	22	23.462	7.556
65504	14	25.436	7.670
65505*	56	4.135	8.468



65506	13	5-654	8-258	65580	17	15-082	18-236	65706*	52	19-314	5-484	65780	10	1-147	13-977
65507	14	7-276	8-748	65581	17	15-278	18-308	65707	21	22-915	5-215	65781	37	1-684	13-188
65508	16	9-979	8-069	65582	20	19-240	18-066	65708	28	23-148	5-896	65782	29	10-261	13-980
65509	15	10-453	8-665	65583	10	22-692	18-038	65709	10	24-075	5-136	65783	10	14-580	13-700
65510	16	14-532	8-142	65584	16	0-572	19-847	65710	8	25-594	5-124	65784	12	15-904	13-826
65511	12	20-294	8-624	65585	23	2-054	19-625	65711	52	0-636	6-179	65785	8	20-347	13-945
65512	33	21-996	8-334	65586	32	5-398	19-927	65712	8	5-210	6-548	65786	8	25-498	13-596
65513	22	24-761	8-542	65587	16	6-306	19-087	65713	28	5-876	6-886	65787	14	2-560	14-994
65514	19	5-299	9-164	65588	10	9-422	19-845	65714	29	8-974	6-738	65788	24	7-935	14-304
65515*	50	10-246	9-228	65589*	49	14-388	19-797	65715	8	16-254	6-875	65789	15	11-128	14-882
65516	36	12-736	9-045	65590	12	14-476	19-844	65716	10	20-390	6-842	65790	20	11-980	14-779
65517	23	17-756	9-933	65591	16	18-916	19-074	65717	12	24-954	6-164	65791	8	12-182	14-956
65518	13	18-696	9-554	65592	16	19-193	19-008	65718	60	25-550	6-470	65792	22	16-662	14-464
65519	12	20-124	9-199	65593	20	20-794	19-656	65719	32	1-076	7-936	65793	18	18-050	14-230
65520	20	23-180	9-386	65594	14	22-214	19-302	65720	44	3-209	7-020	65794	11	23-840	14-584
65521*	46	23-681	9-026	65595	18	1-798	20-357	65721	9	10-683	7-542	65795	21	5-316	15-652
65522	18	0-769	10-892	65596	19	3-092	20-620	65722	28	10-820	7-987	65796	25	5-390	15-642
65523	18	3-375	10-558	65597	16	15-762	20-066	65723	23	11-682	7-024	65797	26	9-620	15-078
65524	13	11-088	10-554	65598	16	21-246	20-145	65724	31	18-394	7-868	65798*	69	13-944	15-614
65525	13	12-212	10-112	65599*	40	3-626	21-564	65725	28	21-660	7-894	65799	8	16-578	15-200
65526	10	14-184	10-686	65600	12	7-672	21-908	65726	21	23-710	7-656	65800	31	19-270	15-156
65527	14	18-303	10-224	65601	22	7-900	21-008	65727	30	24-665	7-523	65801	33	21-272	15-947
65528	16	18-515	10-380	65602	15	11-031	21-243	65728	8	25-706	7-488	65802	40	24-481	15-584
65529	34	4-007	11-782	65603	18	14-512	21-997	65729	30	2-395	8-898	65803	8	25-326	15-360
65530	15	6-764	11-208	65604	15	14-662	21-229	65730	20	6-829	8-010	65804	23	4-470	16-758
65531	16	16-884	11-296	65605	24	15-750	21-477	65731	38	9-615	8-934	65805*	44	6-864	16-507
65532	17	20-075	11-224	65606	16	18-304	21-025	65732	10	12-650	8-884	65806	18	8-360	16-942
65533	19	23-230	11-480	65607	13	0-745	22-546	65733	10	15-430	8-077	65807	14	9-656	16-944
65534	31	2-129	12-448	65608	12	2-746	22-140	65734*	63	15-674	8-696	65808	8	13-096	16-093
65535*	39	13-436	12-258	65609	25	4-250	22-598	65735*	44	18-164	8-532	65809	42	21-134	16-608
65536	10	15-412	12-954	65610	8	8-300	22-764	65736*	64	20-557	8-400	65810	33	22-910	16-396
65537	33	17-655	12-298	65611	26	14-108	22-192	65737	29	23-446	8-840	65811	22	23-256	16-404
65538	15	17-877	12-026	65612	11	17-272	22-792	65738	8	0-260	9-353	65812	30	23-416	16-326
65539	10	18-785	12-918	65613	12	19-036	22-798	65739	26	0-826	9-770	65813	10	2-955	17-199
65540	28	23-976	12-816	65614	19	21-063	22-897	65740*	58	1-318	9-400	65814	8	3-621	17-900
65541	11	25-888	12-325	65615	20	3-094	23-498	65741	8	2-096	9-504	65815	9	3-942	17-731
65542	14	1-523	13-988	65616	16	5-942	23-834	65742	8	4-066	9-398	65816	13	5-466	17-812
65543	19	2-096	13-201	65617	16	6-413	23-452	65743	8	4-594	9-995	65817	33	8-878	17-218
65544	14	4-906	13-375	65618	16	8-877	23-548	65744	10	6-508	9-848	65818	19	10-718	17-060
65545	17	7-043	13-003	65619	31	9-068	23-286	65745	34	7-188	9-876	65819*	110	15-642	17-804
65546	12	9-608	13-055	65620	23	11-154	23-012	65746	8	10-614	9-261	65820	13	16-742	17-694
65547	22	13-494	13-302	65621	21	18-175	23-852	65747	13	10-660	9-604	65821	8	18-031	17-860
65548*	34	14-330	13-616	65622	30	21-186	23-015	65748	42	12-302	9-026	65822	37	18-766	17-112
65549*	26	14-663	13-742	65623	36	22-028	23-955	65749	32	12-626	9-464	65823	14	19-344	17-972
65550	8	20-738	13-919	65624	10	22-972	23-562	65750	8	19-310	9-641	65824	8	0-494	18-428
65551	19	22-138	13-469	65625	19	25-306	23-860	65751	12	19-557	9-766	65825	8	0-754	18-334
65552	14	23-426	13-597	65626	14	11-014	24-230	65752	22	19-584	9-300	65826	9	9-422	18-418
65553*	37	9-994	14-920	65627	37	12-800	24-348	65753	11	20-744	9-898	65827	8	12-234	18-542
65554	15	10-617	14-135	65628	57	14-802	24-683	65754	29	7-100	10-888	65828	15	12-459	18-582
65555	13	10-783	14-697	65629	11	16-718	24-835	65755	8	7-646	10-966	65829	12	25-030	18-316
65556*	58	13-366	14-986	65630	27	20-236	24-016	65756*	47	7-791	10-371	65830	12	0-034	19-706
65557	40	13-406	14-970	65631	16	20-476	24-892	65757	30	11-572	10-837	65831	27	8-310	19-656
65558	15	18-734	14-515	65632	10	24-378	24-878	65758	8	18-229	10-049	65832	24	8-598	19-836
65559	11	19-710	14-298	65633	36	25-634	24-127	65759	9	22-198	10-779	65833	12	11-529	19-034
65560	15	24-821	14-640	65634	15	5-316	25-165	65760	9	22-968	10-128	65834	29	12-684	19-968
65561	21	0-100	15-364	65635	19	6-185	25-824	65761	25	0-914	11-864	65835	39	18-680	19-143
65562	22	4-045	15-273	65636	21	11-025	25-737	65762	9	5-464	11-355	65836	8	22-278	19-498
65563	16	4-563	15-324	65637	14	13-923	25-254	65763*	53	9-376	11-160	65837	25	22-450	19-580
65564	24	10-474	15-428	65638	15	14-267	25-616	65764	17	10-306	11-711	65838	21	23-092	19-440
65565	19	17-304	15-078	65639	37	17-496	25-927	65765	47	16-523	11-600	65839	8	1-483	20-665
65566	28	0-814	16-029	65640	20	21-265	25-436	65766	13	17-576	11-380	65840	8	2-599	20-982
65567	12	3-324	16-052	65641	34	21-660	25-254	65767	34	18-785	11-880	65841	10	3-653	20-800
65568*	74	3-652	16-092	65642	20	22-828	25-603	65768	10	22-550	11-460	65842	9	5-340	20-350
65569	11	11-134	16-183	65643	48	25-646	25-225	65769	15	25-650	11-889	65843	11	9-539	20-510
65570	8	25-176	16-855					65770	9	25-964	11-893	65844	44	11-528	20-244
65571	19	0-399	17-434					65771	10	3-587	12-661	65845	18	15-858	20-580
65572	16	4-008	17-874					65772	8	6-790	12-488	65846	13	25-124	20-340
65573	16	16-133	17-501					65773	12	7-430	12-875	65847	17	25-459	20-940
65574	16	16-473	17-284					65774	9	10-358	12-830	65848	25	5-266	21-274
65575	19	17-246	17-051					65775	13	10-394	12-154	65849	12	5-936	21-654
65576	16	17-890	17-524					65776	15	15-766	12-972	65850*	68	7-246	21-894
65577	23	5-180	18-415					65777	10	23-107	12-346	65851	9	10-613	21-264
65578*	53	10-586	18-681					65778	8	24-329	12-935	65852	11	12-924	21-948
65579	19	12-522	18-867					65779	21	24-628	12-926	65853	25	17-364	21-070



65854	25	18.648	21.462	65952	38	20.292	0.281	66026	11	15.954	9.900	66100	12	11.424	19.276
65855*	33	19.152	21.608	65953	26	0.751	1.487	66027	10	16.722	9.528	66101	10	15.053	19.654
65856	8	25.102	21.203	65954	2	2.622	1.939	66028	11	21.808	9.988	66102	9	15.244	19.460
65857	8	1.890	22.124	65955	9	6.823	1.178	66029	13	22.496	9.094	66103	20	20.157	19.522
65858	35	5.326	22.075	65956	13	8.600	1.490	66030	8	0.578	10.036	66104	15	20.169	19.543
65859	37	6.400	22.368	65957	10	17.194	1.560	66031	10	3.863	10.300	66105	10	22.670	19.326
65860*	80	9.740	22.768	65958	24	5.266	2.196	66032	8	8.396	10.644	66106	8	23.754	19.696
65861	14	11.612	22.380	65959	17	12.273	2.151	66033	9	13.240	10.275	66107	12	25.016	19.536
65862	9	16.366	22.884	65960	11	15.902	2.934	66034	14	16.764	10.300	66108	10	2.817	20.226
65863	38	16.475	22.152	65961	13	18.374	2.024	66035	10	21.288	10.295	66109	11	3.158	20.822
65864	35	24.776	22.676	65962	9	19.554	2.912	66036	8	25.532	10.160	66110	28	10.066	20.348
65865	10	4.158	23.136	65963	11	22.074	2.172	66037	8	0.170	11.368	66111	11	15.244	20.586
65866	39	5.660	23.054	65964	19	22.080	2.218	66038	9	3.274	11.775	66112	8	16.872	20.859
65867	16	10.237	23.996	65965	11	3.598	3.957	66039	17	4.910	11.743	66113	16	18.090	20.854
65868	15	10.300	23.066	65966	8	4.152	3.472	66040	30	6.150	11.169	66114	8	20.850	20.556
65869*	37	13.064	23.255	65967	13	8.690	3.160	66041	11	7.988	11.170	66115	30	20.908	20.760
65870*	44	13.804	23.546	65968	13	10.416	3.100	66042	10	18.943	11.001	66116	10	21.507	20.751
65871	8	14.484	23.651	65969	38	10.938	3.456	66043	11	2.262	11.818	66117*	26	24.006	20.701
65872	8	15.100	23.120	65970	9	12.950	3.740	66044	19	3.740	12.624	66118	9	25.928	20.144
65873	10	15.051	23.000	65971*	44	15.350	3.740	66045	21	4.902	12.504	66119	8	2.800	21.087
65874*	51	17.114	23.216	65972	13	15.808	3.840	66046*	76	10.064	12.685	66120	13	17.162	21.814
65875	16	17.930	23.928	65973	10	16.868	3.262	66047	8	10.800	12.544	66121	11	18.190	21.450
65876	8	20.605	23.025	65974	11	18.194	3.801	66048	19	12.946	12.814	66122	31	24.400	21.981
65877	8	23.656	23.326	65975	10	21.936	3.807	66049	9	15.537	12.226	66123	25	2.488	22.564
65878	23	3.206	24.204	65976	42	22.906	3.363	66050	22	3.863	13.760	66124	10	4.372	22.630
65879	36	3.538	24.468	65977	11	23.642	3.663	66051	10	3.920	13.370	66125	15	6.780	22.082
65880	8	12.353	24.549	65978	34	1.808	4.615	66052*	57	4.876	13.983	66126	14	8.582	22.920
65881	75	12.534	24.268	65979	16	12.430	4.082	66053	11	9.190	13.023	66127	27	8.616	22.530
65882	8	13.626	24.540	65980	10	15.400	4.811	66054	9	9.228	13.516	66128	12	11.752	22.660
65883	29	14.075	24.965	65981	8	20.720	4.128	66055*	40	10.336	13.488	66129	9	14.238	22.610
65884	27	14.602	24.832	65982	10	22.805	4.851	66056*	54	23.185	13.575	66130	13	16.370	22.526
65885	17	15.200	24.698	65983	12	0.487	5.124	66057	17	25.445	13.243	66131	10	18.472	22.877
65886	17	20.800	24.447	65984	16	0.724	5.800	66058	8	1.486	14.482	66132	9	18.901	22.535
65887	38	22.124	24.686	65985	24	5.100	5.164	66059	28	7.503	14.927	66133	33	22.784	22.815
65888	40	22.233	24.884	65986	26	5.807	5.611	66060*	40	9.200	14.404	66134	10	23.026	22.686
65889	12	0.760	25.992	65987	14	14.492	5.020	66061	16	11.968	14.905	66135	13	24.532	22.800
65890	11	2.302	25.244	65988*	50	15.450	5.595	66062	12	16.024	14.093	66136	10	9.530	23.348
65891	12	3.501	25.422	65989*	42	23.749	5.790	66063	10	18.975	14.144	66137	10	9.728	23.848
65892	52	3.567	25.564	65990	9	2.536	6.054	66064	8	20.471	14.626	66138	10	10.518	23.034
65893	9	5.474	25.302	65991*	60	3.130	6.357	66065	31	2.136	15.476	66139	9	11.369	23.178
65894	30	7.300	25.682	65992	10	5.598	6.329	66066	14	7.006	15.785	66140	8	15.298	23.912
65895	8	8.405	25.082	65993	11	7.966	6.550	66067	15	8.175	15.546	66141	30	15.656	23.576
65896	36	9.300	25.162	65994*	42	8.455	6.358	66068	13	8.404	15.460	66142	10	17.760	23.280
65897	33	13.296	25.108	65995	11	9.276	6.653	66069*	46	10.288	15.784	66143	11	19.574	23.015
65898	20	19.347	25.164	65996	10	11.546	6.972	66070	8	18.059	15.270	66144	18	16.234	24.176
65899	22	19.380	25.285	65997	13	16.536	6.679	66071	9	19.028	15.324	66145	8	16.425	24.874
65900	8	21.286	25.485	65998	10	19.812	6.967	66072	21	21.984	15.298	66146	10	16.522	24.710
				65999	14	21.904	6.208	66073	10	22.464	15.464	66147	20	17.802	24.508
				66000	10	22.924	6.225	66074	11	24.737	15.280	66148	9	20.286	24.068
				66001	8	25.126	6.266	66075	28	24.860	15.479	66149	10	22.160	24.887
				66002	17	1.300	7.555	66076	9	25.950	15.607	66150	11	22.470	24.948
				66003	18	2.256	7.415	66077	17	0.570	16.301	66151	8	12.231	25.254
				66004	20	6.262	7.046	66078	12	0.918	16.306	66152	9	13.044	25.540
				66005	14	7.064	7.677	66079	14	1.078	16.228	66153	9	17.338	25.484
				66006	11	7.165	7.080	66080	11	7.693	16.970	66154	9	19.361	25.620
				66007	15	9.623	7.766	66081*	43	8.774	16.216	66155	15	21.652	25.233
				66008	8	14.998	7.720	66082	9	8.920	16.867	66156	11	22.601	25.850
				66009	13	1.048	8.740	66083	10	23.860	16.101				
				66010	19	5.271	8.078	66084	14	25.486	16.544				
				66011	9	6.285	8.994	66085	39	3.870	17.290				
				66012	14	11.184	8.398	66086	10	7.780	17.440				
				66013	11	12.050	8.530	66087*	37	8.524	17.576				
				66014	8	13.287	8.017	66088	10	8.675	17.678				
				66015	10	13.448	8.738	66089	38	10.361	17.550				
				66016	12	16.542	8.550	66090	8	22.500	17.468				
				66017*	43	17.150	8.730	66091	12	25.093	17.497				
				66018	11	17.303	8.060	66092	10	2.710	18.208				
				66019	17	18.458	8.542	66093	33	2.909	18.156				
				66020	8	22.670	8.305	66094	12	8.181	18.527				
				66021	26	5.447	9.190	66095	15	13.640	18.112				
				66022	24	7.840	9.220	66096	16	15.270	18.449				
				66023	17	10.592	9.556	66097	9	20.670	18.153				
				66024	13	14.785	9.067	66098	14	0.137	19.488				
				66025	10	15.242	9.038	66099	13	0.776	19.344				

R.A. 22<sup>h</sup> 12<sup>m</sup>

Plate 769; 1916 Oct. 20.

Provisional Constants.

A B C  
 -0.2508 +0.0402 +2.254  
 D E F  
 -0.0358 -0.2548 -0.0019

Mag. = 17.0 - 1.09√d

No.	d	x	y
66200	13	1.622	0.020
66201	11	6.952	0.884
66202	25	9.489	0.559
66203	14	11.326	0.057
66204	16	15.346	0.676
66205	31	17.574	0.650
66206	21	18.488	0.367
66207	25	21.806	0.549
66208	14	24.963	0.542
66209*	42	4.762	1.795
66210	33	12.458	1.146
66211	18	13.811	1.569
66212*	47	19.288	1.252
66213	18	21.966	1.875
66214	10	25.604	1.125
66215	8	3.226	2.421
66216	30	10.850	2.935
66217*	43	16.050	2.770
66218	13	18.276	2.524
66219	9	21.537	2.277
66220	14	21.662	2.491
66221	45	0.546	3.854
66222*	50	5.404	3.272
66223	8	9.702	3.654
66224	24	17.376	3.988
66225	10	23.308	3.868
66226	13	1.283	4.148
66227*	82	5.120	4.550
66228	8	6.594	4.529
66229	8	9.777	4.753
66230	23	15.325	4.560
66231	29	15.850	4.639
66232	22	20.416	4.534
66233	8	24.122	4.268
66234	9	25.556	4.832
66235	8	25.680	4.605
66236	9	0.452	5.340
66237	9	7.036	5.626
66238	8	7.734	5.185
66239	8	13.568	5.592
66240*	32	14.006	5.980
66241	14	20.344	5.487
66242	31	22.418	5.802
66243	10	25.724	5.492
66244	17	25.906	5.250
66245	9	0.576	6.715
66246*	44	1.394	6.276
66247	27	6.448	6.710
66248*	41	9.155	6.544
66249	23	9.776	6.644
66250*	75	13.037	6.530
66251	23	25.304	6.976
66252	8	6.830	7.892
66253*	52	12.807	7.215
66254	8	17.216	7.566
66255	21	18.074	7.324



66256	11	21.099	7.230	66330	12	20.164	18.474	<div>R.A. 22<sup>h</sup> 20<sup>m</sup></div> <div>Plate 783 ; 1916 Nov. 13.</div> <div>Provisional Constants.</div> <div>A B C</div> <div>−.02570 +.00608 +.0243</div> <div>D E F</div> <div>−.00586 −.02555 +.0205</div> <div>Mag.=16.8−1.09√<i>d</i></div>	66456	29	2.681	7.064	66530	28	0.909	17.668
66257	9	21.676	7.426	66331	10	0.394	19.816		66457	33	6.818	7.547	66531	32	6.679	17.130
66258	9	23.484	7.934	66332	8	4.650	19.708		66458	8	8.917	7.902	66532	26	14.948	17.510
66259	9	0.331	8.794	66333	18	10.834	19.485		66459	12	9.870	7.996	66533	36	19.470	17.350
66260*	60	3.744	8.944	66334	21	11.049	19.474		66460	13	14.850	7.070	66534	14	7.266	18.634
66261	8	4.790	8.509	66335	24	11.120	19.713	66461	12	15.146	7.606	66535	12	12.492	18.952	
66262	11	4.953	8.862	66336	28	12.718	19.816	66462	22	20.511	7.372	66536	19	13.200	18.924	
66263	8	17.424	8.390	66337	16	12.880	19.318	66463	13	22.643	7.577	66537	10	13.304	18.840	
66264	13	20.734	8.040	66338	21	17.728	19.555	66464	21	22.926	7.892	66538	33	15.142	18.306	
66265	10	22.476	8.294	66339	21	17.763	19.546	66465	9	0.874	8.044	66539	11	17.090	18.408	
66266	18	0.162	9.584	66340	22	17.780	19.946	66466	8	7.404	8.872	66540	11	17.997	18.831	
66267	22	7.444	9.515	66341	24	21.258	19.574	66467*	58	22.576	8.641	66541	12	23.544	18.516	
66268	8	19.046	9.956	66342	26	22.734	19.956	66468	12	1.685	9.739	66542	14	23.905	18.121	
66269	8	24.274	9.638	66343	8	1.478	20.183	66469	9	3.738	9.520	66543	9	10.800	19.462	
66270	13	7.290	10.714	66344	12	2.740	20.015	66470	8	12.203	9.066	66544*	38	11.328	19.494	
66271	21	11.386	10.032	66345	8	5.072	20.450	66471	17	12.368	9.072	66545	18	16.554	19.305	
66272	8	12.501	10.626	66346*	40	6.113	20.160	66472	8	13.652	9.470	66546	19	0.2702	20.073	
66273	12	18.902	10.535	66347	8	8.878	20.200	66473	26	14.246	9.968	66547	25	2.406	20.423	
66274	37	21.357	10.466	66348*	68	9.742	20.868	66474*	44	22.035	9.006	66548	32	9.675	20.360	
66275	8	1.229	11.432	66349	40	17.006	20.085	66475	10	23.572	9.056	66549	9	11.474	20.812	
66276*	70	11.316	11.262	66350	12	20.347	20.460	66476	27	3.642	10.290	66550	11	14.103	20.886	
66277*	41	17.311	11.021	66351	24	24.866	20.333	66477	13	4.888	10.483	66551	21	15.964	20.262	
66278	18	20.377	11.756	66352*	34	1.735	21.186	66478	9	6.736	10.664	66552	8	21.257	20.468	
66279	9	21.078	11.008	66353	31	6.300	21.702	66479	14	6.898	10.034	66553	43	25.234	20.776	
66280	8	25.356	11.622	66354	15	8.832	21.953	66480	18	16.814	10.206	66554	25	7.792	21.080	
66281	22	7.814	12.992	66355	11	11.179	21.047	66481	25	17.730	10.056	66555*	41	8.784	21.562	
66282	35	17.764	12.834	66356	8	11.915	21.878	66482	24	24.717	10.515	66556	29	11.022	21.126	
66283	8	23.016	12.682	66357	35	20.796	21.640	66483	12	1.154	11.544	66557*	62	17.425	21.614	
66284	22	3.135	13.721	66358	35	2.134	22.464	66484	12	2.788	11.710	66558	10	17.545	21.902	
66285*	45	4.491	13.896	66359	22	9.258	22.448	66485	22	4.434	11.858	66559*	60	19.569	21.726	
66286	9	7.082	13.910	66360	8	10.496	22.199	66486	20	6.530	11.944	66560	39	19.594	21.726	
66287*	46	21.488	13.570	66361	10	12.084	22.702	66487	17	6.564	11.086	66561	25	20.115	21.250	
66288	11	22.226	13.260	66362	13	13.144	22.652	66488	14	8.880	11.051	66562	18	23.602	21.885	
66289	36	25.525	13.026	66363	8	20.328	22.620	66489	14	8.920	11.996	66563	24	24.930	21.536	
66290*	55	0.872	14.061	66364	34	22.968	22.447	66490	13	16.629	11.491	66564	29	0.535	22.562	
66291	8	7.118	14.491	66365	8	24.065	22.360	66491	16	20.263	11.549	66565	9	1.628	22.460	
66292	12	9.420	14.940	66366	37	0.524	23.304	66492	10	0.460	12.796	66566	10	12.962	22.536	
66293	10	12.077	14.186	66367	16	2.275	23.284	66493	8	3.811	12.423	66567*	38	15.246	22.578	
66294	31	12.286	14.285	66368	11	3.909	23.583	66494	13	4.828	12.540	66568	11	16.037	22.768	
66295	26	13.350	14.522	66369	8	13.416	23.735	66495	17	16.020	12.608	66569	25	16.826	22.156	
66296	24	18.580	14.369	66370	48	20.006	23.915	66496	25	25.030	12.510	66570	15	19.897	22.405	
66297	28	19.714	14.475	66371	37	25.858	23.472	66497	60	25.609	12.336	66571	16	23.280	22.198	
66298	15	22.785	14.294	66372	29	7.924	24.356	66498	32	2.973	13.110	66572	10	23.566	22.634	
66299	8	25.716	14.024	66373	40	9.458	24.497	66499	25	4.368	13.380	66573	32	3.441	23.548	
66300	11	2.434	15.760	66374	12	14.105	24.775	66500	13	6.988	13.002	66574	33	12.912	23.330	
66301	31	2.560	15.956	66375	17	14.806	24.416	66501	28	16.168	13.670	66575	8	13.057	23.895	
66302	28	6.976	15.140	66376	14	15.401	24.706	66502	13	18.250	13.220	66576	29	16.219	23.844	
66303	9	12.388	15.158	66377	11	16.790	24.134	66503	10	19.618	13.437	66577	24	17.117	23.544	
66304*	91	18.974	15.000	66378	8	3.248	25.522	66504	17	19.894	13.858	66578	8	6.604	24.279	
66305	20	18.986	15.346	66379	8	10.230	25.342	66505	8	20.216	13.113	66579	18	7.708	24.887	
66306	15	23.507	15.228	66380	10	11.506	25.704	66506	12	22.268	13.812	66580	14	13.117	24.357	
66307	32	23.517	15.084	66381	8	14.134	25.584	66507	8	24.441	13.846	66581	50	14.876	24.623	
66308	8	1.564	16.589	66382	23	18.686	25.145	66508	15	0.250	14.411	66582	8	14.972	24.934	
66309	25	4.542	16.330	66383	9	24.055	25.905	66509*	30	4.191	14.911	66583	47	15.572	24.650	
66310	8	15.116	16.654					66510	9	7.436	14.712	66584	12	22.850	24.298	
66311	24	16.764	16.352					66511	24	7.914	14.696	66585	10	5.528	25.448	
66312	16	19.365	16.126					66512	12	9.140	14.865	66586	24	7.940	25.977	
66313	8	0.212	17.956					66513	20	11.445	14.917	66587	55	10.456	25.502	
66314	15	2.804	17.976					66514*	43	17.054	14.182	66588	13	10.957	25.532	
66315	16	3.196	17.019					66515	12	23.874	14.678	66589	9	14.969	25.216	
66316	9	4.804	17.809					66516	17	24.042	14.314	66590	28	16.734	25.936	
66317	20	6.169	17.156					66517	9	24.						



R.A. 22<sup>h</sup> 28<sup>m</sup>

Plate 788; 1916 Nov. 15.

Provisional Constants.

A	B	C
-02567	+00352	+1867

D	E	F
-00333	-02523	-0028

Mag. = 16.3 - 1.09√d

No.	d	x	y
66600	24	7.502	0.064
66601*	45	7.680	0.224
66602	8	13.047	0.206
66603	11	14.104	0.029
66604	21	16.325	0.843
66605	13	16.765	0.902
66606	8	17.681	0.840
66607	11	21.746	0.276
66608	23	3.430	1.788
66609	11	5.690	1.620
66610	10	9.660	1.410
66611	11	11.519	1.635
66612	8	15.209	1.628
66613	20	17.010	1.817
66614	14	18.516	1.124
66615	29	20.170	1.462
66616	12	23.898	1.498
66617	8	1.765	2.074
66618	10	12.158	2.015
66619	10	12.500	2.566
66620	23	13.182	2.440
66621	8	15.076	2.870
66622	12	23.534	2.817
66623	11	0.683	3.709
66624	10	1.425	3.049
66625	8	5.604	3.644
66626	19	10.330	3.027
66627	29	10.366	3.817
66628	10	16.443	3.102
66629	27	19.740	3.253
66630	8	20.155	3.476
66631	10	21.120	3.278
66632	36	22.787	3.553
66633*	40	23.038	3.746
66634	15	23.575	3.528
66635	8	24.551	3.883
66636	13	0.632	4.406
66637	9	2.304	4.166
66638	8	2.622	4.888
66639	10	8.433	4.484
66640	22	15.990	4.728
66641	9	16.461	4.602
66642	35	16.700	4.744
66643	10	25.048	4.346
66644	22	0.048	5.273
66645	9	7.963	5.108
66646	14	8.394	5.645
66647	8	9.132	5.230
66648	9	9.574	5.863
66649	8	12.866	5.856
66650	8	13.413	5.690
66651	13	14.745	5.052
66652	19	21.372	5.971
66653	32	25.765	5.048
66654	13	25.779	5.040
66655	10	1.936	6.926

66656	14	3.413	6.210	66730	9	22.082	12.085	66804	8	20.554	18.654
66657	10	4.570	6.180	66731	10	23.208	12.965	66805	8	22.061	18.714
66658	9	6.680	6.320	66732	12	0.025	13.942	66806	14	5.303	19.882
66659	9	18.447	6.956	66733	8	4.250	13.665	66807	8	6.710	19.830
66660	12	0.356	7.699	66734	20	9.196	13.542	66808	10	6.887	19.614
66661	9	4.974	7.160	66735	12	11.840	13.940	66809	10	7.166	19.335
66662	10	12.384	7.734	66736	12	14.710	13.416	66810	16	8.995	19.027
66663	12	12.450	7.438	66737	10	16.962	13.793	66811	11	11.140	19.469
66664	9	12.934	7.121	66738	20	17.055	13.296	66812	8	20.160	19.727
66665	10	19.340	7.563	66739	9	20.408	13.006	66813	9	24.267	19.550
66666	10	20.039	7.135	66740	12	25.154	13.410	66814	36	3.046	20.882
66667	9	20.259	7.322	66741	8	25.775	13.775	66815	24	7.432	20.267
66668	18	22.560	7.450	66742	10	1.642	14.796	66816	10	7.564	20.295
66669	53	0.289	8.766	66743	13	1.806	14.425	66817	19	8.296	20.355
66670	19	0.640	8.012	66744	8	2.035	14.762	66818	9	12.190	20.234
66671	9	3.844	8.500	66745*	33	8.238	14.112	66819	8	14.074	20.408
66672	8	6.694	8.328	66746	15	10.424	14.026	66820	20	15.062	20.722
66673	11	10.908	8.426	66747	11	13.670	14.046	66821	13	17.162	20.317
66674	9	11.652	8.520	66748	13	16.296	14.795	66822	14	18.756	20.826
66675	10	13.184	8.384	66749	10	16.800	14.323	66823	9	22.089	20.666
66676	13	15.960	8.116	66750	8	17.641	14.759	66824	20	24.267	20.606
66677	10	17.020	8.591	66751	12	18.874	14.343	66825	8	24.908	20.956
66678	10	20.966	8.748	66752*	34	21.286	14.620	66826	20	2.749	21.644
66679	13	22.118	8.126	66753	10	1.815	15.145	66827	19	4.684	21.788
66680	28	23.809	8.531	66754	10	4.250	15.843	66828	10	7.270	21.675
66681	13	25.231	8.719	66755	8	5.956	15.497	66829	17	14.575	21.361
66682	10	1.296	9.171	66756	8	8.735	15.806	66830	8	15.336	21.078
66683	24	5.226	9.296	66757	9	8.911	15.685	66831	8	16.811	21.345
66684	9	7.257	9.922	66758	8	11.450	15.685	66832*	50	18.702	21.682
66685	12	9.600	9.274	66759	9	15.660	15.284	66833	8	19.045	21.524
66686	10	10.662	9.360	66760	19	16.945	15.370	66834	10	20.056	21.493
66687	10	11.156	9.362	66761	10	17.874	15.290	66835	12	20.604	21.073
66688	8	13.395	9.416	66762	10	17.906	15.206	66836	16	1.104	22.315
66689	12	13.924	9.810	66763	11	20.304	15.920	66837	10	1.396	22.750
66690	8	14.110	9.992	66764	22	21.086	15.952	66838	14	1.426	22.000
66691	10	16.744	9.350	66765	29	21.802	15.575	66839	14	4.010	22.020
66692	10	18.438	9.754	66766	21	21.863	15.757	66840	8	6.452	22.686
66693	18	18.934	9.704	66767	8	0.152	16.687	66841	20	6.724	22.410
66694	9	19.848	9.448	66768*	45	2.208	16.438	66842	17	17.810	22.960
66695	13	20.810	9.625	66769*	28	2.636	16.417	66843	15	21.496	22.252
66696*	32	24.450	9.097	66770	9	4.246	16.224	66844	8	7.077	23.816
66697	15	2.450	10.624	66771	8	7.546	16.888	66845	27	12.114	23.728
66698	8	5.180	10.799	66772	16	8.280	16.996	66846	11	0.688	24.420
66699	12	8.500	10.099	66773	8	8.856	16.791	66847	21	8.564	24.622
66700	11	8.912	10.085	66774	8	12.518	16.250	66848	10	10.661	24.795
66701	8	9.388	10.398	66775	10	13.126	16.154	66849	10	10.906	24.166
66702	9	9.574	10.038	66776	10	16.844	16.360	66850	60	11.954	24.519
66703	9	12.580	10.112	66777	8	18.180	16.060	66851	8	12.040	24.864
66704	10	15.568	10.600	66778	10	20.374	16.220	66852	9	12.442	24.284
66705	11	17.722	10.351	66779*	44	22.260	16.411	66853	14	13.338	24.455
66706	20	18.015	10.150	66780*	27	24.460	16.714	66854	22	13.711	24.571
66707	10	21.530	10.390	66781	23	5.332	17.580	66855	19	14.025	24.544
66708	14	24.676	10.630	66782	10	5.996	17.312	66856	8	14.474	24.544
66709*	62	4.650	11.037	66783	1	7.655	17.176	66857	22	14.936	24.904
66710	11	8.798	11.370	66784	13	9.740	17.488	66858	40	16.040	24.596
66711	8	11.385	11.535	66785*	33	9.875	17.014	66859	60	19.699	24.050
66712	10	11.776	11.865	66786	9	13.915	17.594	66860	40	20.662	24.380
66713	11	16.588	11.880	66787	10	15.036	17.310	66861	21	21.449	24.084
66714	10	17.080	11.664	66788	12	18.307	17.722	66862	11	1.053	25.122
66715	12	18.770	11.828	66789	9	19.313	17.096	66863	8	4.238	25.248
66716*	100	20.560	11.510	66790	21	23.863	17.526	66864	12	6.571	25.671
66717	8	21.533	11.808	66791	9	24.910	17.085	66865	20	11.264	25.908
66718	8	22.828	11.683	66792	10	25.218	17.184	66866	19	14.439	25.107
66719*	40	24.548	11.334	66793	10	1.340	18.634	66867	9	18.200	25.046
66720	14	24.946	11.500	66794	9	1.446	18.098	66868	56	19.302	25.936
66721	22	25.422	11.936	66795	13	1.698	18.235	66869	12	21.485	25.353
66722	16	25.554	11.607	66796	10	2.030	18.791				
66723	18	2.780	12.618	66797	12	3.926	18.220				
66724*	58	3.351	12.438	66798	31	8.172	18.949				
66725	22	12.166	21.136	66799	10	10.388	18.540				
66726*	40	15.984	12.250	66800	9	10.814	18.316				
66727	20	17.616	12.350	66801	8	12.121	18.364				
66728	14	20.540	12.525	66802	11	15.996	18.435				
66729*	26	21.445	12.043	66803	8	19.972	18.296				

R.A. 22<sup>h</sup> 36<sup>m</sup>

Plate 756; 1916 Aug. 30.

Provisional Constants.

A	B	C
-02556	+00552	+0855

D	E	F
-00522	-02545	-2133

Mag. = 17.3 - 1.09√d

No.	d	x	y
66900	8	4.810	0.256
66901	11	17.054	0.352
66902	29	18.791	0.566
66903	15	24.012	0.542
66904	15	1.318	1.364
66905	19	6.194	1.686
66906	38	6.520	1.098
66907	19	8.054	1.755
66908	39	8.126	1.624
66909	26	9.776	1.855
66910	17	12.818	1.927
66911	13	14.196	1.544
66912	8	20.898	1.832
66913	8	24.213	1.660
66914*	70	24.388	1.934
66915	15	0.965	2.685
66916	8	3.732	2.956
66917	8	8.228	2.923
66918	38	12.390	2.045
66919*	60	13.644	2.358
66920*	54	14.394	2.715
66921	8	23.308	2.289
66922	8	24.510	2.897
66923	14	25.183	2.163
66924	36	25.845	2.026
66925	40	0.227	3.431
66926	47	0.480	3.621
66927	18	1.016	3.400
66928	22	5.856	3.955
66929	19	13.525	3.973
66930	26	14.645	3.122
66931	23	14.736	3.455
66932	8	16.566	3.501
66933	31	19.930	3.236
66934	14	21.123	3.696
66935*	58	23.972	3.549
66936	8	23.975	3.098
66937	13	2.501	4.196
66938	44	3.224	4.892
66939	29	10.586	4.335
66940	34	11.879	4.544
66941	29	15.684	4.372
66942	8	16.536	4.379
66943	41	17.378	4.932
66944	14	18.230	4.010
66945	28	18.513	4.794
66946	11	19.814	4.136
66947	29	21.339	4.576
66948	8	24.896	4.423
66949	8	9.669	5.066
66950	8	11.290	5.576
66951	11	14.862	5.992
66952	11	16.185	5.208
66953*	62	18.480	5.602
66954	28	6.912	6.122
66955*	65	9.378	6.329



66956	8	11.345	6.004	67030	23	17.242	19.521	67109	8	25.342	0.058	67183*	80	7.029	8.415	67257	20	19.173	15.087
66957	32	13.586	6.100	67031	34	21.291	19.646	67110	10	1.662	1.564	67184	9	12.081	8.224	67258	35	20.960	15.688
66958	43	22.080	6.136	67032	34	22.784	19.486	67111*	80	1.826	1.839	67185	11	13.688	8.236	67259	15	23.762	15.418
66959	8	23.616	6.485	67033	30	1.912	20.465	67112*	40	3.292	1.922	67186	18	15.856	8.028	67260	9	24.270	15.853
66960	29	0.046	7.334	67034	9	8.194	20.576	67113	8	10.840	1.794	67187*	45	18.637	8.446	67261	11	2.318	16.655
66961	8	9.950	7.592	67035	12	13.720	20.184	67114	36	10.858	1.744	67188	11	21.035	8.814	67262	30	10.428	16.588
66962	22	11.054	7.418	67036	34	17.063	20.252	67115	18	15.426	1.160	67189*	36	1.480	9.348	67263	21	14.230	16.210
66963	23	17.599	7.760	67037	17	7.423	21.584	67116	8	17.278	1.406	67190	8	1.724	9.080	67264	32	16.664	16.189
66964	19	20.766	7.065	67038	21	8.680	21.738	67117	36	22.205	1.426	67191	8	2.765	9.556	67265	32	17.930	16.870
66965	8	20.952	7.967	67039	10	16.330	21.356	67118	8	0.760	2.206	67192	22	5.312	9.904	67266	27	22.656	16.764
66966	13	22.890	7.005	67040	8	20.066	21.194	67119	10	1.963	2.801	67193	9	6.944	9.940	67267	8	25.872	16.240
66967	37	1.308	8.398	67041	36	21.404	21.926	67120	26	2.630	2.063	67194	9	8.281	9.763	67268	10	1.646	17.689
66968*	44	1.955	8.955	67042	37	24.744	21.338	67121	8	9.714	2.189	67195	8	10.005	9.438	67269	12	4.044	17.483
66969	18	2.734	8.567	67043	42	25.962	21.818	67122	8	10.775	2.446	67196	11	19.304	9.735	67270	21	8.516	17.878
66970	33	18.136	8.056	67044	8	3.470	22.133	67123	16	13.080	2.634	67197*	58	24.824	9.600	67271	34	10.144	17.360
66971*	66	18.933	8.413	67045	8	4.242	22.314	67124	14	19.550	2.000	67198	10	25.461	9.485	67272	36	12.124	17.088
66972	26	22.646	8.342	67046	24	12.004	22.328	67125	24	22.320	2.094	67199	8	1.131	10.374	67273	21	14.195	17.109
66973	24	10.640	9.924	67047	8	16.667	22.248	67126	20	22.538	2.278	67200*	45	1.147	10.145	67274	15	16.528	17.385
66974	8	11.172	9.188	67048	9	19.212	22.056	67127	60	24.999	2.394	67201	35	3.306	10.263	67275	11	19.377	17.220
66975	15	14.454	9.938	67049	21	4.384	23.244	67128*	58	1.421	3.459	67202	34	3.892	10.600	67276	23	20.150	17.422
66976	22	21.919	9.284	67050	8	7.492	23.420	67129	26	3.482	3.621	67203	19	4.674	10.864	67277	17	3.415	18.770
66977*	40	23.989	9.438	67051	8	7.504	23.500	67130	16	3.679	3.688	67204	12	9.472	10.984	67278	9	3.746	18.412
66978	22	2.204	10.486	67052	36	8.164	23.115	67131	10	6.426	3.571	67205	8	10.860	10.560	67279	19	3.786	18.354
66979	11	12.853	10.133	67053	22	13.679	23.422	67132*	43	9.271	3.616	67206	26	14.530	10.450	67280*	47	4.984	18.944
66980	8	23.634	10.468	67054	15	15.914	23.324	67133*	48	12.226	3.077	67207*	62	14.856	10.400	67281	14	6.340	18.836
66981*	46	23.652	10.236	67055*	52	16.893	23.103	67134	10	13.738	3.337	67208	13	15.456	10.740	67282	8	7.874	18.674
66982	35	25.808	10.364	67056	27	21.526	23.454	67135	17	16.400	3.847	67209	21	15.825	10.456	67283	8	10.680	18.350
66983*	60	2.078	11.188	67057	8	21.632	23.956	67136	18	16.410	3.593	67210	12	21.055	10.560	67284	13	11.034	18.570
66984	22	2.483	11.354	67058	26	22.164	23.746	67137	30	23.024	3.045	67211*	80	6.158	11.520	67285*	59	11.479	18.368
66985	31	2.061	11.785	67059	23	24.329	23.500	67138	23	24.152	3.929	67212	13	10.276	11.512	67286	25	13.451	18.606
66986	8	3.092	11.450	67060	13	6.984	24.386	67139	13	2.358	4.325	67213	26	11.065	11.300	67287	8	17.121	18.706
66987	34	14.105	11.727	67061	17	11.190	24.769	67140	21	7.722	4.584	67214	8	16.425	11.228	67288	14	17.594	18.224
66988*	59	4.812	12.368	67062	13	13.392	24.514	67141	36	11.600	4.270	67215	28	17.306	11.080	67289	10	17.713	18.419
66989	23	6.661	12.134	67063	44	19.842	24.610	67142	9	12.490	4.734	67216	18	19.260	11.738	67290	33	0.336	19.400
66990	39	11.404	12.946	67064	9	21.366	24.946	67143	8	19.312	4.075	67217	27	20.606	11.162	67291	17	4.443	19.500
66991	8	14.026	12.262	67065	33	25.596	24.402	67144	26	23.995	4.420	67218	13	23.724	11.300	67292*	47	7.840	19.129
66992	8	17.942	12.612	67066	8	4.684	25.744	67145	14	25.370	4.629	67219	26	4.400	12.056	67293	40	15.005	19.766
66993	28	19.786	12.220	67067	32	11.025	25.311	67146	9	4.164	5.470	67220	12	6.030	12.070	67294	30	16.250	19.464
66994	11	20.605	12.310	67068	10	15.135	25.185	67147	10	11.886	5.810	67221	9	10.095	12.964	67295	9	19.782	19.058
66995	16	2.714	13.260	67069	58	19.660	25.530	67148	8	11.916	5.865	67222	14	10.422	12.924	67296	32	20.640	19.708
66996	8	8.718	13.916					67149	35	13.161	5.494	67223	12	12.680	12.268	67297	8	7.096	20.493
66997	24	13.787	13.199					67150	10	14.150	5.513	67224	29	13.912	12.534	67298	27	8.488	20.918
66998*	47	23.845	13.686					67151	30	14.538	5.521	67225	10	22.150	12.114	67299	9	8.730	20.496
66999	23	23.862	13.250					67152	12	18.230	5.720	67226	14	23.828	12.192	67300	11	9.015	20.988
67000*	42	24.636	13.530					67153	42	25.566	5.056	67227	29	24.242	12.967	67301	28	10.880	20.401
67001	9	6.385	14.814					67154	23	0.369	6.920	67228	19	25.144	12.300	67302	15	11.242	20.404
67002	25	18.725	14.540					67155	9	1.090	6.398	67229	10	1.252	13.498	67303	28	11.808	20.696
67003	23	4.376	15.288					67156	10	4.646	6.038	67230*	48	1.360	13.596	67304	17	12.761	20.622
67004	13	4.582	15.500					67157	11	6.582	6.568	67231	29	1.377	13.158	67305	32	15.381	20.722
67005	28	4.900	15.199					67158	27	8.472	6.302	67232*	45	2.150	13.435	67306	14	17.060	20.909
67006	35	8.720	15.336					67159	12	12.574	6.460	67233	15	4.214	13.650	67307	10	22.084	20.574
67007	34	10.774	15.634					67160	8	12.944	6.484	67234*	42	8.962	13.190	67308*	51	23.650	20.410
67008*	80	10.845	15.834					67161	28	13.030	6.214	67235	36	10.798	13.658	67309	35	2.310	21.242
67009	29	13.148	15.033					67162	31	13.400	6.662	67236	33	11.930	13.598	67310	40	3.529	21.715
67010	22	15.375	15.920					67163	21	15.616	6.930	67237	15	13.050	13.540	67311	10	5.404	21.980
67011	15	18.100	15.447					67164	37	15.757	6.586	67238	8	16.954	13.034	67312	21	7.500	21.978
67012	10	21.233	15.363					67165	11	18.102	6.548	67239	31	18.454	13.570	67313	8	9.990	21.648
67013*	40	2.056	16.571					67166	8	19.070	6.343	67240	36	20.426	13.726	67314*	67	10.610	21.409
67014	8	8.106	16.388					67167	20	25.065	6.510	67241	14	25.408	13.764	67315	38	15.268	21.900
67015	8	8.134	16.256					67168	21	4.374	7.324	67242	27	25.634	13.105	67316	27	22.790	21.067
67016	8	14.340	16.552					67169	9	5.780	7.200	67243	9	5.238	14.194	67317	30	24.428	21.402
67017	11	24.783	16.752					67170	31	8.063	7.890	67244	8	6.861	14.771	67318	49	25.315	21.739
67018	24	1.470	17.390					67171	28	8.821	7.040	67245	28	13.674	14.289	67319	22	8.851	22.389
67019	17	5.236	17.526					67172	21	9.524	7.186	67246	19	15.371	14.550	68320	8	10.653	22.681
67020	36	17.228	17.793					67173	8	9.773	7.960	67247	22	17.656	14.296	67321	28	14.020	22.689
67021	21																		



67331	25	11-843	23-520	67427	16	3-924	3-598	67501	8	6-593	10-634	67575	25	7-551	17-796	67649	8	22-494	24-668
67332	8	14-393	23-686	67428	8	5-818	3-400	67502	15	7-678	10-513	67576	36	8-626	17-330	67650	9	2-400	25-296
67333	17	15-390	23-373	67429	17	7-200	3-356	67503	12	9-032	10-348	67577	21	9-294	17-840	67651	11	2-513	25-292
67334	11	16-824	23-756	67430	28	8-723	3-970	67504	11	10-332	10-432	67578	20	9-404	17-531	67652	20	4-874	25-151
67335	14	24-086	23-890	67431	18	8-750	3-683	67505*	45	11-714	10-269	67579	13	11-197	17-054	67653	14	9-329	25-733
67336	9	1-300	24-743	67432	8	11-844	3-007	67506	30	12-566	10-542	67580	17	12-900	17-150	67654	8	9-394	25-080
67337	8	1-674	24-710	67433	19	12-468	3-769	67507	18	13-542	10-996	67581	11	13-873	17-280	67655	12	10-228	25-918
67338	35	3-181	24-300	67434	34	18-740	3-676	67508	16	15-950	10-060	67582	9	17-745	17-646	67656	16	11-890	25-704
67339	8	6-329	24-270	67435	16	20-414	3-667	67509	8	16-390	10-502	67583*	36	17-887	17-538	67657	9	12-984	25-430
67340	86	7-317	24-865	67436	16	21-642	3-860	67510	15	16-532	10-815	67584	9	20-153	17-792	67658	23	13-338	25-118
67341	21	11-172	24-786	67437	14	25-178	3-549	67511	11	20-344	10-395	67585	8	20-556	17-595	67659	14	18-098	25-533
67342	10	12-026	24-962	67438	23	1-684	4-796	67512	20	20-596	10-194	67586	25	22-807	17-095	67660	41	18-252	25-754
67343	30	13-662	24-520	67439	21	1-834	4-302	67513	14	20-601	10-215	67587*	54	22-842	17-410	67661	30	20-892	25-914
67344	13	13-840	24-524	67440	10	2-545	4-780	67514	29	23-604	10-333	67588*	38	13-324	18-321	67662	16	21-495	25-391
67345	8	18-651	24-212	67441	18	3-061	4-893	67515	19	1-509	11-680	67589	9	19-252	18-542	67663	28	22-362	25-700
67346	9	24-420	24-926	67442	18	13-546	4-107	67516	24	9-130	11-125	67590	10	21-185	18-544	67664	18	23-024	25-422
67347	18	3-684	25-999	67443	12	17-328	4-144	67517	14	9-997	11-470	67591	30	21-380	18-560	67665	24	24-330	25-556
67348	16	3-770	25-062	67444	20	18-016	4-200	67518	16	13-085	11-534	67592*	45	4-420	19-210				
67349	13	6-925	25-019	67445	19	21-700	4-964	67519	34	15-358	11-022	67593	16	8-746	19-094				
67350	48	7-480	25-184	67446	20	23-512	4-948	67520*	64	19-804	11-711	67594	12	10-593	19-608				
67351	23	15-876	25-124	67447*	42	3-262	5-408	67521	9	20-355	11-646	67595	13	11-508	19-247				
67352	16	19-362	25-583	67448*	190	5-386	5-018	67522	9	21-382	11-871	67596	20	21-380	19-980				
				67449	17	9-392	5-040	67523	20	23-842	11-826	67597	8	22-404	19-684				
				67450	19	11-216	5-547	67524	9	25-469	11-087	67598*	60	1-556	20-789				
				67451	10	12-736	5-725	67525	8	0-302	12-438	67599	23	7-458	20-788				
				67452	9	14-150	5-610	67526	17	1-624	12-569	67600	11	12-242	20-731				
				67453	12	15-126	5-774	67527	18	2-942	12-660	67601	36	12-326	20-658				
				67454*	44	15-312	5-992	67528	23	8-200	12-032	67602*	35	13-937	20-012				
				67455	14	19-813	5-935	67529	18	13-709	12-006	67603	8	14-292	20-743				
				67456	27	20-381	5-984	67530	39	16-518	12-401	67604	9	16-596	20-975				
				67457	9	22-586	5-860	67531	16	20-929	12-322	67605*	62	18-200	20-672				
				67458	9	23-538	5-556	67532	14	21-947	12-514	67606	34	18-229	20-166				
				67459	23	2-786	6-868	67533	19	22-814	12-379	67607	8	20-610	20-570				
				67460	14	5-163	6-894	67534	22	2-048	13-338	67608	11	22-823	20-293				
				67461	18	7-012	6-012	67535	24	3-442	13-458	67609	10	25-605	20-964				
				67462	16	11-176	6-448	67536	22	6-812	13-142	67610	26	0-706	21-460				
				67463	10	12-140	6-230	67537	8	6-830	13-662	67611	32	2-353	21-774				
				67464	11	13-444	6-518	67538	21	10-102	13-533	67612	17	4-417	21-354				
				67465	12	17-563	6-160	67539	8	10-865	13-186	67613	12	4-639	21-243				
				67466	18	20-268	6-127	67540	15	12-064	13-238	67614	8	5-226	21-250				
				67467	20	20-846	6-753	67541*	56	13-609	13-346	67615*	42	7-130	21-671				
				67468	19	3-924	7-484	67542*	53	17-214	13-476	67616	8	10-757	21-608				
				67469	10	7-610	7-054	67543	24	18-718	13-834	67617	22	12-700	21-606				
				67470	28	9-766	7-412	67544	8	22-253	13-744	67618	12	13-284	21-162				
				67471	20	10-819	7-426	67545	30	22-586	13-357	67619	20	15-945	21-336				
				67472	13	11-720	7-542	67546	22	23-314	13-665	67620	16	17-828	21-738				
				67473	9	15-655	7-264	67547*	43	25-822	13-437	67621	13	18-905	21-022				
				67474	8	16-746	7-306	67548	10	2-812	14-932	67622	36	19-907	21-127				
				67475	14	19-274	7-897	67549	16	3-229	14-120	67623	8	20-928	21-510				
				67476	11	19-505	7-728	67550	12	3-452	14-899	67624	10	21-913	21-492				
				67477	23	21-374	7-056	67551	8	5-210	14-956	67625	12	24-302	21-705				
				67478	11	25-258	7-296	67552	12	7-811	14-577	67626*	50	3-242	22-098				
				67479	8	3-211	8-718	67553	32	10-106	14-824	67627	10	15-111	22-591				
				67480	38	7-092	8-741	67554	10	15-611	14-862	67628	30	17-932	22-486				
				67481	21	12-380	8-124	67555*	34	17-107	14-926	67629	13	20-360	22-361				
				67482	10	13-539	8-674	67556	26	20-553	14-861	67630	12	6-602	23-658				
				67483*	50	19-316	8-369	67557	19	1-603	15-798	67631	12	8-151	23-449				
				67484	14	20-888	8-396	67558	18	5-367	15-400	67632	22	9-167	23-087				
				67485	18	24-332	8-878	67559	13	11-244	15-507	67633	10	12-155	23-507				
				67486	15	24-700	8-554	67560	20	11-517	15-258	67634	15	17-954	23-572				
				67487*	50	2-580	9-964	67561	16	11-692	15-098	67635	10	18-738	23-432				
				67488	16	3-220	9-843	67562	13	13-835	15-678	67636	11	19-560	23-018				
				67489	11	6-899	9-418	67563	32	16-141	15-543	67637	33	19-604	23-172				
				67490	16	7-560	9-688	67564	13	2-118	16-224	67638	11	21-123	23-666				
				67491	28	12-480	9-616	67565	10	3-724	16-589	67639	16	21-890	23-112				
				67492	21	13-592	9-756	67566	11	4-350	16-045	67640	12	22-916	23-779				
				67493	32	14-086	9-456	67567	22	9-690	16-406	67641	18	2-049	24-262				
				67494	12	15-330	9-848	67568	15	12-966	16-320	67642	13	3-938	24-858				
				67495	17	16-022	9-714	67569	20	19-183	16-086	67643	38	6-672	24-339				
				67496	9	16-594	9-287	67570	16	22-402	16-958	67644	15	6-744	24-924				
				67497	35	17-240	9-356	67571	20	0-518	17-156	67645	28	7-076	24-792				
				67498	10	5-264	10-539	67572	15	5-052	17-162	67646	9	7-433	24-055				
				67499*	100	5-768	10-285	67573	21	5-932	17-603	67647	16	14-821	24-968				
				67500	12	6-090	10-944	67574	10	6-402	17-358	67648	42	14-950	24-601				

R.A. 23<sup>h</sup> 0<sup>m</sup>



67732	16	10.992	4.500	67806	16	19.110	14.572	67880	34	6.820	24.721	67936	14	21.038	4.884	68010	19	4.092	13.156
67733	15	13.500	4.362	67807	18	19.136	14.670	67881	10	21.926	24.576	67937	11	21.775	4.053	68011	9	7.300	13.040
67734	48	13.973	4.576	67808	13	19.738	14.536	67882	44	5.846	24.000	67938	8	22.694	4.838	68012	11	8.288	13.023
67735	10	15.972	4.599	67809	32	19.936	14.501	67883	10	0.282	25.401	67939	9	4.488	5.745	68013	10	9.187	13.031
67736	9	19.389	4.234	67810	8	4.759	15.062	67884	18	1.587	25.525	67940	9	7.072	5.143	68014	8	14.070	13.566
67737	8	25.274	4.351	67811	26	8.860	15.611	67885	14	5.096	25.741	67941*	53	10.057	5.444	68015	17	17.628	13.050
67738	27	25.850	4.048	67812	23	10.590	15.953	67886	10	5.644	25.305	67942	8	15.589	5.601	68016	11	20.840	13.674
67739	8	0.610	5.536	67813	13	12.441	15.969	67887	34	5.882	25.930	67943*	39	19.249	5.400	68017	8	24.136	13.580
67740	11	13.055	5.509	67814	9	15.280	15.802	67888	10	6.771	25.590	67944	40	20.701	5.809	68018	10	0.969	14.639
67741	9	7.696	6.772	67815*	74	20.906	15.810	67889	9	9.367	25.334	67945	10	24.548	5.995	68019	10	6.236	14.540
67742	10	12.571	6.885	67816	8	2.660	16.456	67890	8	20.686	25.349	67946	8	6.237	6.132	68020	8	14.186	14.500
67743	15	15.010	6.235	67817	10	3.494	16.408	67891	8	21.761	25.690	67947	8	6.949	6.504	68021	8	17.443	14.023
67744	20	15.873	6.729	67818	8	7.664	16.751	67892	50	25.198	25.098	67948	22	8.335	6.068	68022	10	22.836	14.399
67745	11	16.301	6.793	67819	13	9.443	16.489					67949	12	9.519	6.504	68023	13	4.362	15.947
67746	20	18.721	6.086	67820	10	13.190	16.725					67950	8	9.964	6.394	68024	13	4.602	15.004
67747	8	21.665	6.536	67821	29	16.860	16.834					67951	10	14.602	6.006	68025	8	7.960	15.381
67748	10	2.348	7.260	67822	37	17.011	16.156					67952	8	18.176	6.460	68026	32	10.230	15.060
67749	8	5.487	7.198	67823	25	21.356	16.924					67953	8	24.706	6.742	68027	20	11.594	15.096
67750	39	6.255	7.569	67824*	52	0.016	17.394					67954	8	4.433	7.534	68028	15	16.856	15.794
67751	44	9.376	7.471	67825	8	5.196	17.728					67955	8	5.536	7.420	68029	11	17.578	15.426
67752*	40	9.577	7.148	67826	8	6.479	17.988					67956	13	6.782	7.900	68030*	42	18.552	15.010
67753	8	14.216	7.395	67827	13	8.066	17.840					67957*	46	6.960	7.090	68031	9	18.622	15.050
67754	8	20.800	7.478	67828	18	8.822	17.206					67958	10	9.040	7.013	68032	8	19.776	15.871
67755	10	1.432	8.847	67829	18	9.224	17.306					67959	11	10.934	7.190	68033	8	2.920	16.697
67756	8	1.592	8.788	67830	31	12.394	17.118					67960	12	14.840	7.468	68034	8	5.370	16.100
67757	11	1.800	8.520	67831*	77	12.621	17.552					67961	8	14.884	7.442	68035	23	10.260	16.070
67758	12	9.850	8.206	67832	8	14.530	17.428					67962	8	15.112	7.735	68036	8	12.456	16.108
67759	35	10.834	8.774	67833	9	0.186	18.498					67963	10	24.010	7.422	68037	8	20.488	16.936
67760	26	19.100	8.420	67834	20	4.896	18.902					67964	23	25.406	7.341	68038	9	20.756	16.526
67761	10	6.295	9.401	67835	9	5.218	18.494					67965*	38	4.200	8.966	68039	8	1.148	17.928
67762	12	6.307	9.404	67836	10	5.704	18.748					67966	9	10.613	8.076	68040	10	4.770	17.294
67763	19	9.615	9.747	67837	10	7.974	18.201					67967	8	14.053	8.561	68041*	48	8.515	17.650
67764	12	18.212	9.719	67838	8	8.500	18.205					67968	10	15.350	8.582	68042	30	9.639	17.349
67765*	91	25.862	9.255	67839	18	11.300	18.000					67969	26	18.590	8.760	68043*	42	14.082	17.884
67766	22	0.720	10.308	67840	10	12.241	18.460					67970	8	20.020	8.451	68044*	61	15.778	17.713
67767	20	3.155	10.976	67841	11	16.614	18.792					67971	29	21.132	8.004	68045	8	17.334	17.988
67768	11	4.876	10.424	67842	12	19.115	18.514					67972	10	24.822	8.796	68046*	41	19.628	17.326
67769	8	5.840	10.046	67843	24	9.030	19.574					67973	8	25.317	8.762	68047	9	23.520	17.317
67770	13	6.808	10.566	67844	11	11.058	19.143					67974	12	25.697	8.484	68048	10	3.202	18.418
67771	8	13.025	10.542	67845	8	12.123	19.200					67975	9	2.560	9.412	68049	8	5.364	18.162
67772	26	15.740	10.600	67846*	84	12.217	19.659					67976*	66	3.907	9.335	68050	10	6.586	18.276
67773	16	0.970	11.800	67847	36	13.590	19.685					67977*	44	8.659	9.024	68051	8	12.026	18.687
67774	8	2.120	11.041	67848	24	14.482	19.477					67978	9	9.119	9.087	68052	10	12.980	18.663
67775	10	3.430	11.230	67849	9	14.950	19.950					67979*	36	14.260	9.426	68053	21	13.160	18.610
67776	8	4.867	11.350	67850	34	20.120	19.084					67980	10	14.434	9.924	68054	9	20.925	18.178
67777	10	6.556	11.623	67851*	76	20.765	19.417					67981	9	15.069	9.689	68055	9	20.972	18.092
67778	20	7.698	11.776	67852	12	23.912	19.288					67982	20	17.055	9.466	68056	19	22.826	18.132
67779	34	11.930	11.340	67853	8	0.029	20.274					67983	10	17.336	9.320	68057	18	2.090	19.380
67780	10	13.580	11.898	67854	30	5.370	20.020					67984*	60	17.426	9.867	68058	13	2.108	19.024
67781	31	14.513	11.418	67855	14	7.311	20.269					67985*	102	24.698	9.088	68059	13	11.539	19.144
67782	8	14.610	11.881	67856	21	9.148	20.353					67986	8	2.864	10.098	68060	8	12.684	19.802
67783*	69	20.492	11.036	67857	21	9.732	20.393					67987	13	4.024	10.410	68061	18	16.096	19.581
67784	31	22.858	11.532	67858*	18	19.208	20.217					67988*	55	7.688	10.025	68062	10	16.705	19.514
67785	10	9.698	12.270	67859	9	1.525	21.670					67989	34	7.961	10.700	68063	17	18.060	19.690
67786	8	12.406	12.656	67860	10	6.990	21.392					67990	8	11.249	10.310	68064	8	7.022	20.460
67787	8	14.280	12.998	67861	38	11.420	21.210					67991*	40	12.258	10.115	68065	10	10.290	20.851
67788	11	14.930	12.920	67862	18	12.876	21.300					67992	8	13.482	10.246	68066*	29	10.426	20.160
67789	14	0.460	13.642	67863	11	5.038	22.066					67993*	36	14.339	10.892	68067	22	16.587	20.010
67790*	38	2.960	13.392	67864*	53	5.860	22.513					67994	19	16.938	10.827	68068	8	18.193	20.390
67791	33	7.964	13.649	67865	10	6.280	22.342					67995	12	19.134	10.125	68069	14	24.021	20.539
67792	17	12.796	13.953	67866	20	9.432	22.688					67996	21	20.124	10.524	68070	10	1.752	21.985
67793	10	14.054	13.886	67867	40	9.891	22.166					67997	8	25.856	10.568	68071	10	5.312	21.316
67794	16	14.080	13.560	67868	14	12.961	22.232					67998	30	4.420	11.205	68072	18	6.343	21.838
67795	38	14.185	13.431	67869	24	17.604	22.156					67999	10	13.200	11.082	68073	20	6.961	21.414
67796	21	16.870	13.806	67870	8	0.158	23.756					68000	8	18.284	11.490	68074	12	13.230	21.445
67797	11	18.642	13.385	67871	29	3.877	23.144					68001	8	25.198	11.696	68075	8	15.348	21.013
67798	20	19.917	13.800	67872	36	6.545	23.319					68002	10	4.734	12.380	68076	9	22.923	21.877
67799	14	25.991	13.084	67873	15	6.654	23.444					68003	21	5.553	12.100	68077	27	23.650	21.150
67800	8	0.590	14.930	67874	17	8.579	23.740					68004*	29	7.170					



68084	9	14.240	22.018
68085	8	21.153	22.600
68086*	52	22.914	22.085
68087	12	23.880	22.974
68088	8	25.882	22.256
68089	47	0.721	23.913
68090	8	8.580	23.486
68091*	39	13.590	23.104
68092	17	14.551	23.362
68093*	40	15.885	23.193
68094	12	24.866	23.678
68095	12	0.179	24.692
68096	39	3.086	24.068
68097	27	5.458	24.585
68098	8	10.263	24.421
68099	8	10.265	24.788
68100	8	13.343	24.665
68101	22	14.442	24.266
68102	12	21.302	24.360
68103	42	3.448	25.170
68104	9	4.196	25.758
68105	56	5.712	25.394
68106	8	20.023	25.909
68107	8	21.427	25.062
68108	10	24.820	25.417
68109	14	25.131	25.016

R.A. 23<sup>h</sup> 16<sup>m</sup>

Plate 806 ; 1916 Nov. 18.

Provisional Constants.

$$\begin{matrix} A & B & C \\ -0.2467 & +0.0430 & +1.014 \end{matrix}$$

$$\begin{matrix} D & E & F \\ -0.0418 & -0.2490 & -3.265 \end{matrix}$$

$$\text{Mag.} = 16.8 - 1.09\sqrt{d}$$

No.	d	x	y
68150	9	5.850	0.727
68151	9	6.755	0.110
68152	27	8.368	0.172
68153	8	17.170	0.428
68154	32	0.210	1.770
68155	34	10.162	1.546
68156	10	11.809	1.256
68157	9	19.011	1.706
68158	28	22.014	2.016
68159	10	22.208	2.108
68160	8	24.186	2.745
68161	33	10.686	3.130
68162	9	22.092	3.892
68163	8	2.460	4.592
68164	8	4.572	4.574
68165	8	5.966	4.853
68166	9	6.316	4.793
68167*	80	8.394	4.478
68168	9	0.150	5.592
68169	23	2.052	5.987
68170	8	8.266	5.627
68171	34	10.672	5.244
68172	18	11.329	5.398

68173	33	17.499	5.276
68174	9	18.573	5.490
68175*	47	19.988	5.481
68176	13	2.217	6.732
68177	8	3.312	6.712
68178	17	6.687	6.312
68179	35	7.981	6.623
68180	38	12.864	6.426
68181	9	15.000	6.510
68182	35	15.924	6.296
68183	31	16.094	6.860
68184	14	16.582	6.106
68185	17	18.030	6.239
68186	25	1.525	7.418
68187	33	2.921	7.323
68188	8	12.611	7.958
68189	27	13.869	7.232
68190	17	2.350	8.784
68191	8	2.846	8.746
68192	18	3.222	8.464
68193	12	4.400	8.064
68194	18	5.793	8.558
68195	9	10.144	8.030
68196	8	11.304	8.945
68197	9	16.411	8.490
68198*	93	2.216	9.078
68199	17	5.096	9.486
68200	10	5.879	9.874
68201	26	6.221	9.744
68202	9	6.776	9.884
68203	26	7.350	9.826
68204	25	8.806	9.902
68205*	40	21.596	9.068
68206	15	22.386	9.122
68207	27	5.222	10.800
68208	33	5.885	10.154
68209	23	6.280	10.688
68210	29	8.524	10.128
68211	12	9.126	10.202
68212	34	11.788	10.430
68213*	62	14.594	10.619
68214	25	14.756	10.066
68215	10	15.838	10.817
68216	9	2.750	11.684
68217*	44	3.796	11.110
68218	20	7.267	11.230
68219	29	8.285	11.959
68220	22	12.670	11.690
68221	8	2.478	12.709
68222	21	19.822	12.845
68223	8	1.704	13.574
68224	13	12.964	13.575
68225	15	15.000	13.668
68226*	62	18.394	13.292
68227	40	18.836	13.132
68228	11	20.120	13.258
68229	8	20.154	13.369
68230	11	5.250	14.457
68231*	40	9.184	14.474
68232	10	11.717	14.282
68233	9	13.551	14.850
68234	19	13.816	14.300
68235	40	14.140	14.926
68236	9	17.945	14.054
68237	25	25.620	14.438
68238*	41	8.908	15.392
68239*	60	13.494	15.080
68240*	44	14.649	15.259
68241	16	10.976	16.314
68242	8	14.112	16.215
68243	10	15.570	16.532
68244	18	18.300	16.852
68245	12	1.122	17.318
68246	9	2.320	17.670

68247	39	5.080	17.644
68248	24	5.674	17.570
68249	32	8.932	17.083
68250	8	9.644	17.837
68251	11	9.840	17.589
68252	38	10.120	17.564
68253*	54	13.628	17.268
68254	10	21.910	17.734
68255	14	23.721	17.545
68256	9	24.844	17.926
68257	16	25.458	17.656
68258	10	25.538	17.697
68259	27	0.434	18.140
68260	27	3.930	18.974
68261	38	4.947	18.410
68262	11	5.494	18.769
68263	10	7.414	18.340
68264	11	10.478	18.796
68265	8	23.242	18.236
68266	14	4.954	19.650
68267	34	7.482	19.210
68268	8	11.296	19.778
68269*	41	15.830	19.792
68270	34	16.628	19.238
68271	32	21.400	19.235
68272	24	1.651	20.540
68273	12	7.734	20.915
68274	41	15.766	20.820
68275	22	16.084	20.616
68276	20	16.401	20.412
68277*	42	17.268	20.802
68278	34	1.285	21.151
68279	12	2.622	21.717
68280	8	7.066	21.210
68281	40	10.610	21.265
68282	21	13.563	21.582
68283	24	14.222	21.160
68284	16	24.544	21.982
68285*	49	0.550	22.094
68286	24	1.534	22.974
68287	10	7.202	22.429
68288	16	11.046	22.864
68289	11	13.508	22.047
68290	9	14.224	22.150
68291	13	20.271	22.808
68292*	27	21.695	22.459
68293	23	24.543	22.077
68294	21	2.527	23.669
68295	32	14.790	23.876
68296	11	19.249	23.124
68297	8	23.260	23.084
68298	13	8.185	24.550
68299	28	11.727	24.769
68300	60	13.216	24.769
68301	15	19.077	24.328
68302	29	20.002	24.682
68303	16	2.495	25.410
68304	28	2.800	25.006
68305	30	7.989	25.784
68306	44	12.040	25.581
68307	14	16.195	25.236

R.A. 23<sup>h</sup> 24<sup>m</sup>

Plate 801 ; 1916 Nov. 17.

Provisional Constants.

$$\begin{matrix} A & B & C \\ -0.02565 & +0.00105 & +3.112 \end{matrix}$$

$$\begin{matrix} D & E & F \\ -0.00156 & -0.02545 & -2.672 \end{matrix}$$

$$\text{Mag.} = 16.8 - 1.09\sqrt{d}$$

No.	d	x	y
68350	17	5.180	0.362
68351	18	11.934	0.477
68352	13	11.040	1.376
68353	17	15.346	1.851
68354*	40	18.442	1.622
68355	22	23.100	1.406
68356	30	1.888	2.892
68357	19	11.134	2.373
68358	20	17.630	2.075
68359	24	17.960	2.577
68360*	46	23.231	2.306
68361	23	0.046	3.549
68362	16	5.612	3.860
68363	18	11.054	3.255
68364	15	13.710	3.236
68365	37	15.875	3.258
68366	16	17.881	3.638
68367	18	20.422	3.390
68368	26	0.326	4.478
68369	22	0.376	4.935
68370	37	2.564	4.928
68371	13	3.088	4.347
68372	21	6.134	4.042
68373	29	9.093	4.300
68374	18	9.628	4.524
68375	28	13.100	4.083
68376	19	13.931	4.927
68377	31	17.707	4.054
68378	38	21.814	4.954
68379	34	25.086	4.701
68380	16	25.237	4.706
68381	23	0.422	5.698
68382	23	6.481	5.072
68383	20	11.674	5.170
68384	19	22.472	5.378
68385	36	24.929	5.663
68386	24	0.406	6.849
68387	17	16.300	6.754
68388*	74	17.712	6.928
68389	14	19.766	6.074
68390	19	25.246	6.897
68391	37	5.204	7.856
68392	11	9.397	7.146
68393*	38	9.906	7.809
68394	16	10.964	7.550
68395	29	20.501	7.582
68396	38	21.439	7.714
68397	16	0.902	8.355
68398	24	2.487	8.319
68399*	52	4.057	8.815
68400	17	4.778	8.895
68401	16	7.212	8.625
68402	28	12.704	8.134
68403	16	15.322	8.974
68404	38	0.131	9.276
68405	13	3.258	9.766

68406	31	13.240	9.153
68407*	40	5.596	10.413
68408	18	23.554	10.522
68409	16	23.756	10.256
68410	16	24.248	10.209
68411	32	25.474	10.249
68412	29	1.295	11.944
68413	22	4.916	11.354
68414	12	8.401	11.610
68415	17	10.717	11.296
68416	17	11.104	11.254
68417	20	17.961	11.462
68418	16	18.527	11.554
68419	20	18.958	11.444
68420	32	19.612	11.068
68421	15	20.288	11.040
68422	16	25.251	11.340
68423	18	0.243	12.518
68424	29	5.051	12.120
68425	19	9.555	12.702
68426	17	10.388	12.481
68427	21	11.470	12.214</



68480	20	23.307	18.696	<b>R.A. 23<sup>h</sup> 32<sup>m</sup></b> Plate 784 ; 1916 Nov. 14. <i>Provisional Constants.</i> A B C -02566 +00439 +2428 D E F -00429 -02578 -0598 $Mag. = 15.8 - 1.09\sqrt{d}$	68606	8	12.731	9.508	68680*	23	20.084	19.494	68768	14	7.294	1.150
68481	20	23.509	18.934		68607	13	15.831	9.976	68681	10	0.973	20.206	68769	36	10.452	1.706
68482	27	9.576	19.054		68608	13	16.722	9.202	68682	11	2.727	20.864	68770	8	10.515	1.904
68483	26	12.597	19.795		68609	11	24.221	9.626	68683*	29	5.253	20.384	68771	23	15.698	1.915
68484	20	13.714	19.206		68610	12	1.103	10.756	68684	9	5.921	20.561	68772	8	15.988	1.312
68485	14	13.851	19.028		68611	12	1.326	10.494	68685	11	18.192	20.064	68773*	44	2.651	2.866
68486	30	19.894	19.039		68612	99	1.814	10.436	68686	11	20.116	20.404	68774	12	6.516	2.183
68487	17	23.282	19.968		68613	15	3.044	10.460	68687	22	1.602	21.574	68775	35	15.560	2.640
68488	20	23.577	19.429		68614	9	4.257	10.038	68688	8	11.335	21.886	68776	11	16.583	2.813
68489	13	2.150	20.104		68615	9	8.656	10.892	68689*	31	11.662	21.806	68777	26	25.875	2.022
68490	13	2.650	20.809	<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b> Plate 807 ; 1916 Nov. 18. <i>Provisional Constants.</i> A B C -02553 +00144 +0943 D E F -00146 -02555 -2123 $Mag. = 16.9 - 1.09\sqrt{d}$	68616*	41	9.475	10.730	68690	14	18.540	21.598	68778	12	4.415	3.329
68491	26	8.275	20.558		68617	8	11.439	10.165	68691	12	25.751	21.854	68779	23	8.330	3.898
68492	14	8.604	20.450		68618	9	14.598	10.586	68692	25	3.146	22.453	68780	8	9.224	3.088
68493	27	10.370	20.855		68619	12	15.670	10.069	68693	9	4.156	22.066	68781*	51	9.564	3.301
68494	17	10.884	20.800		68620	20	20.654	10.920	68694	21	4.648	22.506	68782	25	15.574	3.100
68495	12	16.514	20.100		68621	10	25.341	10.808	68695	9	13.406	22.144	68783	11	17.860	3.770
68496	37	17.309	20.856		68622	13	2.836	11.551	68696	16	7.321	23.163	68784	22	19.376	3.620
68497	21	17.525	20.816		68623*	44	3.626	11.048	68697	17	17.054	23.008	68785	12	6.184	4.393
68498	14	19.383	20.997		68624	12	11.817	11.306	68698	13	19.820	23.164	68786	19	7.000	4.941
68499	25	19.469	20.745		68625	10	16.452	11.098	68699	18	3.520	24.414	68787	38	7.415	4.672
68500*	39	21.416	20.996	<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b> Plate 807 ; 1916 Nov. 18. <i>Provisional Constants.</i> A B C -02553 +00144 +0943 D E F -00146 -02555 -2123 $Mag. = 16.9 - 1.09\sqrt{d}$	68626	26	20.415	11.828	68700	22	3.890	24.400	68788	10	10.690	4.210
68501	20	22.231	20.054		68627	11	21.732	11.740	68701	12	16.934	24.584	68789	19	13.952	4.871
68502	19	25.020	20.650		68628	15	9.050	11.654	68702	28	19.652	24.145	68790	9	17.295	4.584
68503	36	8.507	21.826		68629	18	1.607	10.026	68703	19	20.015	24.316	68791	9	24.134	4.700
68504	40	9.260	21.390		68630	10	10.611	12.746	68704	10	22.008	24.082	68792	10	1.820	5.136
68505	20	14.450	21.060		68631	9	23.946	12.874	68705	20	1.224	25.776	68793	18	8.857	5.412
68506*	48	14.737	21.995		68632	11	24.705	12.999	68706	11	1.946	25.236	68794	39	14.696	5.832
68507	19	17.080	21.494		68633	10	0.129	13.683	68707	47	12.538	25.603	68795	9	15.664	5.304
68508	18	18.795	21.294		68634	9	19.596	13.415	68708	12	13.624	25.686	68796*	44	19.823	5.522
68509	33	20.714	21.837		68635	22	22.474	13.488	68709	10	16.004	25.056	68797	30	21.736	5.630
68510	17	21.820	21.196	<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b> Plate 807 ; 1916 Nov. 18. <i>Provisional Constants.</i> A B C -02553 +00144 +0943 D E F -00146 -02555 -2123 $Mag. = 16.9 - 1.09\sqrt{d}$	68636	11	24.526	13.951	68710	40	23.824	25.196	68798	83	25.022	5.638
68511	34	23.892	21.345		68637	15	0.435	14.232					68799	9	25.267	5.510
68512	46	2.381	22.211		68638	18	1.292	14.057					68800	30	2.791	6.880
68513	42	2.383	22.115		68639	21	3.167	14.598					68801	21	10.620	6.806
68514	20	8.564	22.344		68640*	55	8.118	14.174					68802	8	12.204	6.898
68515	28	8.710	22.214		68641	22	21.850	14.558					68803	24	14.576	6.700
68516	31	15.498	22.128		68642	11	21.918	14.366					68804	16	20.764	6.746
68517	36	15.518	22.146		68643	21	25.343	14.229					68805	29	25.952	6.624
68518	27	17.244	22.694		68644	22	1.174	15.476					68806	25	3.556	7.487
68519	39	25.418	22.244		68645	12	12.446	15.718					68807	36	4.222	7.859
68520	38	1.108	23.226		68646	10	19.174	15.684					68808	37	4.616	7.670
68521	18	3.027	23.387	<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b> Plate 807 ; 1916 Nov. 18. <i>Provisional Constants.</i> A B C -02553 +00144 +0943 D E F -00146 -02555 -2123 $Mag. = 16.9 - 1.09\sqrt{d}$	68647	13	19.714	15.400					68809	31	7.434	7.942
68522	34	3.218	23.964		68648	11	20.424	15.976					68810	8	7.474	7.084
68523	32	5.812	23.420		68649	22	22.124	15.324					68811	8	7.708	7.288
68524	18	6.506	23.472		68650	24	24.091	15.654					68812	40	15.432	7.892
68525	36	11.456	23.314		68651	9	24.818	15.775					68813	12	16.239	7.874
68526	42	18.108	23.654		68652	40	25.226	15.244					68814	28	18.146	7.580
68527	36	20.250	23.404		68653	18	0.499	16.148					68815*	62	19.588	7.050
68528	24	20.886	23.324		68654	13	10.552	16.256					68816	29	21.070	7.093
68529	19	6.610	24.076		68655	8	11.356	16.835					68817	28	1.128	8.749
68530	20	11.982	24.404		68656	9	11.541	16.597					68818	39	3.766	8.708
68531	17	14.416	24.774	<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b> Plate 807 ; 1916 Nov. 18. <i>Provisional Constants.</i> A B C -02553 +00144 +0943 D E F -00146 -02555 -2123 $Mag. = 16.9 - 1.09\sqrt{d}$	68657	15	13.662	16.987					68819	32	5.920	8.505
68532	23	16.602	24.638		68658	12	16.078	16.086					68820	12	13.187	8.076
68533	36	17.552	24.234		68659	10	22.319	16.346					68821	18	13.698	8.580
68534	40	20.179	24.096		68660	8	25.315	16.175					68822	31	22.324	8.400
68535	40	21.564	24.883		68661	41	0.641	17.239					68823	13	1.640	9.580
68536	37	25.768	24.208		68662*	27	6.104	17.212					68824	10	7.484	9.750
68537	36	7.790	25.788		68663*	44	7.891	17.502					68825	33	17.156	9.444
68538	18	7.836	25.763		68664*	33	13.586	17.800					68826	36	22.136	9.516
68539	26	11.489	25.907		68665	11	18.654	17.358					68827	40	23.282	9.807
68540	32	12.006	25.391		68666	21	21.754	17.794					68828	44	23.542	9.395
68541	21	18.607	25.206	<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b> Plate 807 ; 1916 Nov. 18. <i>Provisional Constants.</i> A B C -02553 +00144 +0943 D E F -00146 -02555 -2123 $Mag. = 16.9 - 1.09\sqrt{d}$	68667	10	0.282	18.423					68829	14	1.784	10.760
68542	37	23.454	25.546		68668	12	0.985	18.423					68830*	46	4.134	10.379
					68669	9	2.958	18.779					68831	26	5.106	10.880
					68670	9	13.646	18.118					68832	8	8.730	10.249
					68671	16	16.596	18.568					68833	34	14.124	10.634
					68672	16	20.442	18.619					68834	11	18.214	10.284
					68673	8	25.082	18.702					68835	10	21.336	10.310
					68674	10	25.312	18.302					68836*	45	22.661	10.415
					68675	10	1.194	19.166					68837	9	23.650	10.632
					68676	11	1.266	19.662					68838*	58	23.878	10.328
					68677*	46	5.718	19.022					68839	8	24.260	10.140
				<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b> Plate 807 ; 1916 Nov. 18. <i>Provisional Constants.</i> A B C -02553 +00144 +0943 D E F -00146 -02555 -2123 $Mag. = 16.9 - 1.09\sqrt{d}$	68678*	38	13.096	19.690					68840	36	24.805	10.105



68842*	38	9.134	11.310	68916	18	10.590	19.922	68970	24	17.366	3.384	69044	8	21.570	10.712	69118	14	18.268	16.012
68843	12	12.850	11.485	68917	16	15.485	19.521	68971	23	22.502	3.563	69045	8	21.846	10.053	69119	27	20.545	16.930
68844	10	18.150	11.332	68918	39	5.360	20.752	68972	13	22.837	3.451	69046	15	24.500	10.993	69120	23	22.372	16.721
68845	11	1.394	12.826	68919	30	7.582	20.694	68973	15	3.684	4.238	69047	24	3.856	11.372	69121	11	2.348	17.988
68846	12	2.152	12.944	68920	21	13.848	20.806	68974	11	10.764	4.039	69048	38	6.136	11.393	69122	8	4.054	17.138
68847	19	4.629	12.664	68921*	4	15.320	20.532	68975	10	18.072	4.899	69049	9	6.986	11.139	69123*	38	8.990	17.642
68848	24	5.176	12.621	68922	26	15.999	20.718	68976	13	25.330	4.952	69050	30	8.746	11.427	69124	8	11.514	17.012
68849	12	9.232	12.852	68923*	44	18.238	20.111	68977	8	0.315	5.490	69051	14	10.700	11.910	69125	10	13.406	17.458
68850	8	19.136	12.646	68924	28	3.264	21.796	68978*	80	2.594	5.798	69052*	58	11.570	11.712	69126	22	17.271	17.919
68851	13	20.124	12.624	68925	11	10.520	21.207	68979	18	2.848	5.666	69053	34	16.750	11.139	69127	10	20.003	17.305
68852	13	20.404	12.051	68926	18	20.398	21.734	68980	20	5.282	5.412	69054	9	19.186	11.146	69128	30	20.236	17.388
68853	8	22.235	12.391	68927	23	5.362	22.999	68981	8	6.424	5.008	69055	8	19.660	11.744	69129	13	24.526	17.634
68854	8	23.554	12.516	68928	14	7.522	22.550	68982	10	9.350	5.586	69056	16	19.942	11.748	69130	15	4.276	18.630
68855	13	1.976	13.898	68929	10	10.805	22.353	68983*	41	10.252	5.640	69057	8	20.318	11.298	69131	9	5.466	18.500
68856	22	6.110	13.184	68930	13	12.619	22.027	68984	31	10.422	5.815	69058	35	20.696	11.470	69132	10	7.515	18.486
68857	13	6.998	13.888	68931	13	15.424	22.988	68985*	41	14.505	5.729	69059	11	21.972	11.580	69133	9	11.006	18.522
68858	8	12.638	13.270	68932	21	17.907	22.455	68986	22	15.542	5.224	69060*	38	23.004	11.830	69134	18	11.860	18.386
68859*	42	12.752	13.199	68933	25	19.461	22.931	68987	26	20.548	5.422	69061	26	25.004	11.215	69135	14	16.198	18.676
68860	15	15.735	13.076	68934	38	4.250	23.386	68988	26	23.464	5.869	69062	11	1.256	12.700	69136	35	17.328	18.024
68861	19	17.479	13.825	68935	12	5.662	23.914	68989	12	25.413	5.050	69063	23	5.894	12.990	69137	11	19.139	18.520
68862	13	17.708	13.667	68936	37	6.190	23.627	68990	28	3.549	6.766	69064	8	7.560	12.134	69138	23	25.616	18.900
68863	15	18.910	13.839	68937	22	20.321	23.582	68991	13	6.146	6.988	69065	24	7.858	12.333	69139	10	8.006	19.340
68864	11	21.840	13.724	68938	29	3.586	24.930	68992	18	12.301	6.052	69066*	44	10.293	12.008	69140	18	9.276	19.944
68865	41	23.246	13.066	68939	47	1.358	25.149	68993	18	12.692	6.437	69067	17	10.866	12.134	69141	31	9.946	19.226
68866	34	2.796	14.174	68940	11	12.119	25.824	68994	22	17.042	6.608	69068*	45	12.324	12.940	69142	18	15.772	19.002
68867	8	6.306	14.530	68941	11	14.860	25.106	68995	16	17.460	6.930	69069	10	13.589	12.976	69143	9	18.688	19.915
68868	36	8.742	14.430	68942	13	14.890	25.480	68996	8	19.960	6.990	69070	35	15.773	12.608	69144	11	20.075	19.871
68869	9	10.183	14.576	68943	17	15.886	25.025	68997	8	8.796	7.184	69071	14	16.828	12.156	69145	9	22.574	19.946
68870	28	12.278	14.448	68944	18	24.205	25.943	68998	9	10.856	7.514	69072	14	17.461	12.150	69146	34	22.685	19.325
68871	40	14.936	14.980					68999	21	12.344	7.516	69073	19	18.101	12.740	69147*	42	22.788	19.644
68872	26	19.474	14.920					69000	8	13.016	7.014	69074	9	21.735	12.110	69148	8	1.166	20.276
68873	11	20.000	14.060					69001*	35	13.204	7.326	69075	35	24.476	12.102	69149	10	3.970	20.193
68874	39	20.920	14.020					69002	22	14.065	7.864	69076	38	0.956	13.256	69150	36	3.984	20.010
68875	8	21.797	14.473					69003	21	15.474	7.182	69077	12	3.508	13.306	69151	19	7.651	20.752
68876	8	22.130	14.276					69004	26	17.622	7.166	69078	14	5.614	13.514	69152	30	9.516	20.437
68877	36	1.555	15.608					69005	28	19.520	7.778	69079	15	5.796	13.040	69153	10	9.597	20.880
68878*	49	2.686	15.186					69006	8	20.204	7.170	69080	35	7.483	13.128	69154	30	14.214	20.771
68879	8	5.024	15.078					69007	8	21.700	7.154	69081	25	9.788	13.188	69155	8	15.792	20.081
68880	8	5.546	15.042					69008	24	21.778	7.306	69082	28	12.745	13.890	69156	8	17.090	20.201
68881	36	8.252	15.526					69009	9	23.114	7.075	69083	20	16.405	13.110	69157	22	19.460	20.452
68882	11	10.760	15.800					69010	9	23.214	7.004	69084	18	17.234	13.723	69158	21	20.215	20.500
68883	12	12.514	15.338					69011	8	1.529	8.620	69085	33	19.610	13.206	69159	28	5.474	21.290
68884	19	17.078	15.199					69012*	45	6.312	8.835	69086	36	23.213	13.434	69160	10	7.814	21.924
68885	13	18.146	15.908					69013	10	16.661	8.622	69087	11	23.226	13.034	69161	36	9.817	21.786
68886*	74	21.173	15.424					69014	21	20.935	8.054	69088	22	23.772	13.668	69162	9	11.190	21.355
68887	38	21.484	15.255					69015	10	21.012	8.092	69089	26	24.230	13.266	69163	11	19.006	21.950
68888	9	22.814	15.410					69016*	45	24.720	8.371	69090	13	4.135	14.726	69164	14	25.325	21.170
68889	8	1.338	16.576					69017	32	24.724	8.325	69091	8	8.292	14.554	69165	30	7.300	22.682
68890	11	2.784	16.121					69018	37	0.934	9.995	69092	29	8.450	14.605	69166	28	9.569	22.660
68891	9	4.592	16.630					69019	39	1.184	9.578	69093	20	8.512	14.736	69167	8	10.324	22.414
68892	10	5.160	16.762					69020	28	4.320	9.979	69094	11	10.811	14.328	69168	15	15.328	22.210
68893	14	9.073	16.976					69021	31	6.736	9.874	69095	8	14.934	14.916	69169	21	17.725	22.756
68894*	45	9.199	16.874					69022	9	10.215	9.143	69096	13	18.148	14.190	69170	9	19.727	22.200
68895	9	9.258	16.880					69023	8	13.939	9.796	69097	27	18.670	14.851	69171*	55	22.545	22.086
68896	8	10.865	16.250					69024	10	13.956	9.556	69098	22	20.384	14.925	69172	8	24.350	22.605
68897	40	15.766	16.950					69025	9	18.334	9.036	69099	32	22.614	14.444	69173	8	3.275	23.088
68898	16	18.284	16.598					69026	8	20.985	9.354	69100	8	24.728	14.664	69174	23	4.132	23.504
68899	32	18.344	16.590					69027	32	23.320	9.276	69101	13	0.565	15.607	69175*	51	4.725	23.505
68900	18	18.480	16.841					69028	36	24.970	9.064	69102	10	5.640	15.672	69176	8	6.271	23.736
68901	17	20.383	16.756					69029	40	0.322	10.615	69103*	53	12.007	15.699	69177	40	6.718	23.900
68902	9	2.320	17.672					69030	8	1.318	10.814	69104	9	13.686	15.550	69178	43	10.296	23.766
68903	11	12.106	17.706					69031*	49	1.536	10.507	69105	10	15.983	15.206	69179	30	11.015	23.056
68904	8	24.551	17.820					69032	8	1.916	10.310	69106	15	16.319	15.116	69180	20	12.149	23.119
68905	10	2.800	18.245					69033	36	2.464	10.268	69107	22	17.410	15.190	69181	10	12.527	23.551
68906	32	9.400	18.350					69034	8	7.370	10.609	69108	8	20.832	15.138	69182	8	17.047	23.902
68907	12	13.294	18.965					69035	21	9.776	10.391	69109	29	21.142	15.752	69183	10	23.166	23.410
68908	33	14.888	18.518																



69192	13	25.536	24.158	69202	36	11.094	0.067	69235	19	5.470	7.371	69268*	58	14.592	13.676	69301	17	21.160	19.106
69193	9	1.947	25.815	69203	56	25.778	0.013	69236	15	15.954	7.464	69269*	82	21.837	13.606	69302	16	23.886	19.299
69194	15	16.092	25.386	69204	37	0.306	1.176	69237*	42	2.322	8.643	69270	30	0.251	14.725	69303	19	24.842	19.714
69195	26	16.680	25.934	69205	36	5.365	1.783	69238	37	2.328	8.596	69271	17	8.692	14.288	69304	36	5.726	20.989
69196	40	21.095	25.817	69206	21	11.230	1.001	69239	30	15.054	8.464	69272	17	10.286	14.535	69305	18	8.190	20.088
				69207	16	13.835	1.946	69240	26	0.928	9.554	69273	16	17.560	14.729	69306	16	15.304	20.138
				69208	36	3.860	2.564	69241	36	2.576	9.334	69274	38	8.590	15.272	69307	36	21.426	20.522
				69209	14	6.932	2.947	69242	22	10.258	9.527	69275	14	10.211	15.935	69308	16	23.108	20.950
				69210	19	9.582	2.787	69243	18	11.294	9.958	69276*	80	10.933	15.608	69309*	36	5.385	21.854
				69211	22	10.079	2.006	69244*	32	15.533	9.218	69277	22	13.810	15.996	69310	18	14.016	21.310
				69212	18	14.037	2.636	69245	17	18.060	9.472	69278	19	14.888	15.064	69311	16	14.676	21.904
				69213	28	18.068	2.594	69246*	39	7.269	10.064	69279	20	19.356	15.390	69312	16	15.225	21.236
				69214	26	0.083	3.843	69247	12	20.540	10.786	69280	26	13.904	16.428	69313	16	24.764	21.743
				69215	14	0.421	3.732	69248	15	24.224	10.523	69281	20	16.098	16.766	69314	34	25.522	21.166
				69216	21	11.054	3.020	69249	18	25.581	10.216	69282	21	24.837	16.206	69315	48	0.220	22.367
				69217	18	12.569	3.080	69250	18	2.119	11.264	69283	18	25.918	16.594	69316	17	5.197	22.718
				69218	26	24.663	3.057	69251	20	2.626	11.484	69284	20	11.658	17.771	69317	13	8.701	22.289
				69219	19	24.681	3.872	69252	22	6.455	11.518	69285*	37	12.664	17.119	69318	22	19.397	22.584
				69220	31	6.393	4.010	69253	21	18.004	11.336	69286	14	19.334	17.736	69319	44	25.949	22.686
				69221	17	10.791	4.208	69254	16	19.256	11.552	69287*	60	23.430	17.422	69320	22	18.108	23.015
				69222	32	16.709	4.247	69255	14	24.964	11.070	69288*	46	7.936	18.520	69321	20	18.562	23.221
				69223	40	23.546	4.014	69256	38	0.624	12.111	69289	12	11.312	18.764	69322*	129	20.200	23.068
				69224	14	2.917	5.218	69257	23	2.101	12.375	69290	22	13.660	18.477	69323	16	3.231	24.424
				69225*	82	5.007	5.712	69258	22	4.830	12.268	69291	18	18.394	18.955	69324	25	5.208	24.442
				69226	20	6.420	5.292	69259	16	12.822	12.309	69292	11	19.879	18.819	69325	20	19.264	24.240
				69227	15	14.201	5.972	69260	16	13.768	12.521	69293	16	22.439	18.286	69326	52	21.642	24.103
				69228*	40	16.890	5.467	69261	16	15.128	12.077	69294	36	23.005	18.596	69327	34	22.476	24.583
				69229*	42	21.840	5.442	69262	25	25.590	12.026	69295	36	0.349	19.604	69328	26	23.886	24.242
				69230	28	1.051	6.149	69263	36	0.841	13.714	69296	40	0.452	19.924	69329	40	19.830	25.452
				69231	24	8.270	6.636	69264	17	1.407	13.945	69297	22	3.280	19.164	69330	17	23.817	25.218
				69232	17	18.165	6.106	69265	21	1.862	13.537	69298*	36	3.984	19.422	69331	22	24.937	25.704
				69233*	40	22.636	6.135	69266	26	4.823	13.574	69299	27	4.411	19.620				
				69234	12	2.356	7.941	69267	17	9.136	13.444	69300	12	19.312	19.376				

**R.A. 23<sup>h</sup> 56<sup>m</sup>**

Plate 785; 1916 Nov. 14.

*Provisional Constants.*

A	B	C
-0.02567	+0.00462	+0.1388
D	E	F
-0.00422	-0.02544	+0.0174

$Mag. = 16.6 - 1.09\sqrt{d}$

No.	d	x	y
69200	36	4.149	0.040
69201	23	9.030	0.944







NIZAMIAH OBSERVATORY, HYDERABAD

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ASTROGRAPHIC CATALOGUE, 1900·0

ZONE  $-17^{\circ}$

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STANDARD CO-ORDINATES

OF

THE STARS IN THE WASHINGTON ASTRONOMISCHE  
GESELLSCHAFT CATALOGUE



## EXPLANATION OF THE COLUMNS.

*Hyderabad Number.*—This is the number assigned in the preceding Catalogue of measures of plates taken at Hyderabad. Some stars occur on two plates, and in this case they have two numbers, thus, Washington 45 is Hyderabad —17°, 14 and also Hyderabad —17°, 307. Some stars will also occur on plates with centre in Declination —18°. Occasionally, owing to slight errors of centring the plate, a star will fall outside the réseau and hence will have no number on such a plate, but will occur on an adjacent plate with a Hyderabad number.

*Washington Number and Magnitude.*—These are taken direct from the Washington Astronomische Gesellschaft Catalogue and require no explanation.

*Standard Co-ordinates.*—This name was first proposed in *M.N.R.A.S.*, liv. p. 11, and has been generally adopted for the rectangular co-ordinates of a star on a plate fulfilling the following ideal conditions :—

- (i.) Plate truly centred and oriented for 1900.0.
- (ii.) No refraction and aberration.
- (iii.) A suitable unit of length adopted.

The formulæ giving these co-ordinates are—

$$\begin{aligned}\xi &= k \cdot \tan (\alpha - A) \cdot \sec (\theta - D) \cdot \cos \theta, \\ \eta &= k \cdot \tan (\theta - D),\end{aligned}$$

where

$$\tan \theta = \sec (\alpha - A) \cdot \tan \delta,$$

where

$\alpha, \delta$  are the R.A. and Declination of the star,  
 $A, D$  are the R.A. and Declination of the plate centre,

and  $k$  depends on the adopted unit of length. For the Astrographic Catalogue, the unit chosen is 5' at the plate centre, and  $k=687.54935$ .

For the calculation of  $\xi, \eta$ , approximate formulæ were used, and reduced to tables. To avoid negative signs the constant 13.0000 has been added to all the values of  $\xi, \eta$  to form

$$\xi' = \xi + 13, \eta' = \eta + 13,$$

and the quantities  $\xi', \eta'$  are given in the following Catalogue. The co-ordinates are thus referred to a corner of the réseau and not to the plate centre.

The Right Ascensions and Declinations used are those given in the Catalogue for 1900.0 without any application of proper motions.

For determining plate constants, stars known or suspected of proper motion were either omitted from the solution or a provisional proper motion was applied, but no such proper motions have been applied in forming the following Catalogue of Standard Co-ordinates.



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 0h 4m</b>					<b>R.A. 0h 20m (continued)</b>					<b>R.A. 0h 44m (continued)</b>				
150	8830	8.4	0.9013	17.9562	652	111	9.0	14.3387	9.2578	1353	197	9.1	6.7789	7.4057
..	3	8.6	3.2149	0.0852	632	112	9.2	14.6410	5.1382	..	199	9.4	7.4476	0.1418
107	6	9.2	5.1811	12.7737	656	114	9.2	15.7268	9.9733	1387	203	9.0	13.1143	12.2290
126	7	9.1	5.3818	16.5452	625	116	9.0	16.0022	4.1074	..	205	9.0	14.8840	0.2814
46	9	8.7	7.2688	5.8802	603	121	8.8	20.3033	1.1028	1367	206	9.0	15.8135	9.5356
31	13.	9.0	10.3068	4.0117	663	122	7.9	20.4609	12.5801	1347	207	8.0	16.6931	6.0818
218	18	9.0	14.2014	23.2236	732	123	9.2	20.7107	23.6388	1368	211	9.2	18.9402	9.2136
33	19	9.4	14.3397	4.2910	709	124	9.3	20.8834	19.0597	1459	214	9.2	20.5129	20.4704
203	24	9.3	15.4734	22.6531	657	126	9.1	23.2470	10.2997	1460	216	9.2	20.9944	20.4317
142	28	9.0	16.5253	17.0545	729	127	9.4	23.2437	22.3277	<b>R.A. 0h 52m</b>				
5	34	5.3	19.2737	1.2093	730	129	9.1	24.4991	22.2686	1623	222	9.4	3.4791	3.2995
147	36	9.0	21.3821	17.4535	<b>R.A. 0h 28m</b>					1668	225	8.0	4.7754	9.6231
49	38	9.0	21.6962	5.7901	864	126	9.1	0.2658	10.3123	1699	226	8.8	4.9705	12.7531
21	40	9.4	22.7824	2.6925	954	127	9.4	0.3853	22.3404	1603	227	8.8	6.1236	0.9455
12	42	9.3	24.3263	1.9920	955	129	9.1	1.6401	22.2677	1737	228	8.0	7.9853	19.1010
194	43	9.0	24.7515	21.7207	956	132	9.0	3.6495	22.1414	1692	229	9.0	9.7408	11.9164
210	44	8.2	24.8209	21.9303	846	135	8.3	5.4647	6.6365	1773	230	8.3	9.7780	23.2028
14	45	9.3	25.3471	1.6469	830	138	9.3	6.3553	4.5356	1745	233	9.4	12.9133	20.3629
<b>R.A. 0h 12m</b>					918	139	8.4	7.9724	17.1531	1721	234	9.4	13.4453	17.1664
305	42	9.3	1.2603	1.9940	832	140	9.2	9.1374	5.1568	1655	235	8.5	13.8953	7.5781
449	43	9.0	1.8869	21.7175	901	147	9.4	15.6186	15.2945	1633	238	8.2	15.1983	4.9277
460	44	8.2	1.9584	21.9262	838	148	9.6	16.1667	5.9636	1625	241	8.4	16.4099	3.7029
307	45	9.3	2.2776	1.6396	912	149	9.3	16.1841	16.2906	1626	242	8.4	16.4258	3.6829
323	46	9.2	2.8737	4.2164	951	150	9.2	17.4986	21.0523	1723	243	9.2	17.2669	17.1028
462	49	9.0	5.5048	22.6178	860	152	9.2	19.7912	8.7901	1674	248	9.5	20.1586	10.3173
420	51	8.6	5.6012	15.7453	893	155	8.0	21.1166	14.4474	1710	249	8.2	22.0729	15.1735
450	53	9.1	6.2763	21.5321	851	156	8.8	21.1889	7.2909	1748	251	8.8	23.2286	20.4065
339	54	9.4	6.3502	6.3889	903	157	9.1	21.1604	15.6549	1749	252	9.0	23.3810	20.5486
354	57	8.7	7.0436	8.3380	808	158	8.8	21.3865	1.2183	<b>R.A. 1h 0m</b>				
369	58	9.0	7.2601	10.3772	904	160	9.1	21.8214	15.3370	1955	254	8.8	2.6141	11.0124
463	59	9.2	7.3222	22.7823	873	161	8.9	22.8497	10.6963	1953	255	7.4	3.4655	10.6371
427	60	8.0	7.7996	16.7450	<b>R.A. 0h 36m</b>					1944	258	9.1	5.9215	9.1626
309	70	9.1	12.4646	1.3480	1128	162	8.6	2.9920	5.5530	1901	259	9.0	8.4337	0.7640
445	77	9.1	17.6293	20.0479	1190	163	8.6	3.9894	15.6715	1976	261	9.3	9.0103	14.3922
359	78	9.0	18.4799	7.6380	1152	164	8.0	4.8804	10.5532	2030	262	9.4	9.7604	21.8520
326	80	9.4	21.0774	3.8774	1114	166	8.8	6.3755	3.5721	1978	266	9.4	15.0794	14.6450
388	82	9.4	21.6127	10.8114	1198	167	8.8	6.8290	16.5593	1905	269	7.8	18.1645	1.5430
321	84	9.0	22.3367	2.4378	1158	170	8.8	9.4531	11.5205	1950	272	9.3	20.5449	9.7625
327	85	9.0	23.6274	3.6495	1175	175	7.2	11.4480	13.7795	1968	274	9.1	20.9110	13.2590
367	87	9.2	24.3474	9.1625	1191	176	9.3	11.6408	15.6137	1934	275	8.8	20.9826	6.8129
<b>R.A. 0h 20m</b>					1243	178	9.2	12.7544	23.1650	1938	276	9.1	22.0077	8.2770
619	85	9.0	0.5783	3.6578	1162	180	9.3	14.9526	12.0992	2025	279	8.2	23.6458	20.1951
651	87	9.2	1.3546	9.1645	1194	182	8.7	17.5765	16.0274	<b>R.A. 1h 8m</b>				
654	88	8.3	3.0230	10.1717	1142	183	9.0	18.1558	9.1132	2183	279	8.2	0.7657	20.2032
717	90	9.4	5.7359	21.0515	1134	184	9.0	18.6142	8.1849	2132	280	9.4	3.0503	7.8941
677	91	8.3	6.4247	14.4718	1135	185	9.4	19.4084	8.2758	2104	282	9.4	4.4133	0.9100
683	93	8.8	6.8669	15.7550	1154	186	8.5	21.0355	11.3357	2146	285	7.4	5.7093	11.0800
636	94	9.0	6.9771	6.0503	1101	189	9.1	23.6791	0.2269	2191	286	9.0	6.5882	21.3212
641	95	6.9	7.2428	6.9844	1242	190	9.0	24.3064	22.4079	2119	287	8.9	7.5018	3.8328
693	97	9.2	7.4763	17.6603	<b>R.A. 0h 44m</b>					2133	290	8.4	9.9695	8.0920
670	101	8.9	9.3781	13.0842	..	189	9.1	0.5951	0.2350	2114	292	8.7	10.4341	3.6638
679	102	9.2	9.5088	14.3971	1470	190	9.0	1.4488	22.4089	2157	294	9.4	12.2966	14.3867
694	104	9.2	10.4939	17.6025	1391	193	7.9	3.5205	12.6729	2165	298	9.2	13.3166	15.6136
695	105	9.4	10.5857	16.8890	1412	194	7.9	4.3633	15.4187	2116	299	9.2	15.2867	2.9439
655	106	9.2	11.4088	10.3750	1471	195	9.2	5.5173	22.0830	2176	303	9.4	16.2647	18.0228
622	107	8.9	11.7790	4.5023										
646	109	8.0	12.5265	7.9870										
601	110	9.0	13.0361	0.9768										



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 1<sup>h</sup> 8<sup>m</sup> (continued)</b>					<b>R.A. 1<sup>h</sup> 32<sup>m</sup> (continued)</b>					<b>R.A. 1<sup>h</sup> 48<sup>m</sup> (continued)</b>				
2150	304	9.2	16.3852	12.4365	2810	395	9.1	9.0062	16.6560	3231	491	9.2	17.4647	3.4922
2138	306	8.8	16.6684	8.9232	2877	396	9.1	9.0458	23.9253	3216	495	9.1	19.9541	1.3123
2177	307	9.3	17.3898	17.7418	2867	397	8.4	9.8341	22.7700	3345	497	9.1	21.7253	20.5066
2197	309	8.6	18.3444	22.2362	2718	399	9.4	10.8860	3.2393	3349	498	8.8	21.8715	21.3842
2121	310	7.4	18.6639	5.1742	2746	400	8.5	11.4910	7.3268	3327	499	9.1	22.1758	18.4019
2201	313	8.2	21.2569	23.9727	2868	402	9.2	13.1595	22.4876	3317	500	9.5	22.5347	17.0167
2160	316	8.9	23.3009	14.8312	2703	403	8.9	13.5989	1.3160	3232	501	8.8	22.7010	4.0888
2171	317	8.9	23.9611	15.8713	2711	404	9.0	13.8120	2.1379	<b>R.A. 1<sup>h</sup> 56<sup>m</sup></b>				
2189	320	8.1	24.7265	20.3957	2772	405	9.2	13.9862	10.3119	3466	504	8.0	2.8156	11.9684
<b>R.A. 1<sup>h</sup> 16<sup>m</sup></b>					2749	406	8.5	14.6266	7.0971	3442	505	7.6	4.2556	8.4511
2382	317	8.9	1.0368	15.8762	2738	408	8.0	17.4885	5.5650	3458	515	9.2	11.4982	10.9725
2412	320	8.1	1.8484	20.3926	2704	409	8.2	17.5603	0.6549	3451	516	9.2	15.3868	9.5490
2313	322	9.0	2.5858	2.8986	2870	410	9.2	17.6415	22.4457	3505	517	9.3	15.8442	18.1542
2305	324	9.1	3.2314	1.2193	2751	412	8.8	19.9537	7.0751	3486	519	7.9	16.3089	13.6211
2326	325	9.4	3.5795	5.0311	2871	413	9.1	20.0953	22.1273	3487	520	9.2	16.9963	13.6066
2364	326	9.2	3.6414	12.6325	2838	416	8.6	22.7740	18.9692	3460	521	9.2	17.0674	10.7733
2414	332	8.2	9.9557	19.7554	2872	417	9.3	23.4362	22.6165	3414	523	9.2	18.0454	2.1522
2328	333	7.3	10.2524	5.0400	2777	418	8.2	23.7355	10.5749	3462	526	9.4	19.2112	10.6262
2399	334	9.3	10.6259	17.4830	<b>R.A. 1<sup>h</sup> 40<sup>m</sup></b>					3508	528	8.2	20.5582	19.1892
2400	335	9.3	11.5361	17.6479	3046	418	8.2	0.7572	10.5862	3403	529	9.0	20.9350	0.5553
2346	336	9.4	12.1764	9.5582	3098	423	9.1	4.0554	19.3053	3437	530	9.3	21.0844	6.5072
2388	341	9.4	14.4768	16.2138	3111	424	8.8	4.9054	21.1948	3453	533	7.4	23.6944	9.3628
2366	343	8.4	19.1361	13.0746	3078	426	9.3	8.3352	16.9566	3463	534	8.5	24.1667	10.2368
2374	344	8.2	19.1407	14.0293	3030	431	4.5	11.3648	6.5818	3472	536	8.4	24.2246	11.4076
2347	349	8.8	20.6229	9.9488	3080	432	8.6	12.4077	17.0107	3521	537	7.9	24.4573	22.2265
2370	350	9.1	23.7383	12.5988	3025	435	8.4	14.1407	5.7084	3417	538	8.0	25.0684	2.9012
2324	351	7.5	23.8408	3.1995	3058	436	9.4	14.4346	12.7839	<b>R.A. 2<sup>h</sup> 4<sup>m</sup></b>				
<b>R.A. 1<sup>h</sup> 24<sup>m</sup></b>					3050	440	9.5	17.6689	10.6485	3663	533	7.4	0.7037	9.3705
2575	350	9.1	0.7806	12.6066	3116	442	8.2	21.0607	21.6276	3668	534	8.5	1.1849	10.2398
2515	351	7.5	0.7872	3.2061	3001	448	9.1	24.3093	0.6968	3681	536	8.4	1.2547	11.4106
2618	352	9.2	2.5155	18.1985	3096	449	9.2	24.3173	17.8845	3769	537	7.9	1.5979	22.2265
2653	358	9.0	4.9618	22.9737	..	450	9.2	24.8620	0.1159	3618	538	8.0	2.0116	2.8955
2587	360	9.2	5.9756	13.5931	3004	451	8.7	25.2271	1.9788	3783	539	9.3	3.3984	24.0089
2631	361	9.4	9.2461	20.1037	<b>R.A. 1<sup>h</sup> 48<sup>m</sup></b>					3606	540	9.6	3.6659	2.0119
2564	363	9.0	10.6684	9.6229	3200	448	9.1	1.2300	0.6988	3623	541	9.3	4.0625	3.9909
2648	364	8.0	10.7901	22.3643	3319	449	9.2	1.4135	17.8855	3770	543	8.6	4.7863	22.4929
2530	365	8.6	11.6278	6.0996	..	450	9.2	1.7768	0.1132	..	544	6.6	5.8848	0.0847
2531	368	9.1	13.2499	5.7605	3208	451	8.7	2.1609	1.9722	3619	548	7.6	7.7019	3.1829
2649	369	9.2	13.9739	22.0063	3292	452	9.2	2.8353	14.9373	3673	550	9.0	9.5826	10.4476
2650	370	9.2	14.5073	22.6557	3218	453	9.4	3.0836	2.8106	3719	553	8.7	10.7043	16.6978
2557	373	8.4	14.7763	8.8276	3302	456	9.2	4.5619	16.2506	3690	554	9.2	11.2838	12.1827
2526	375	7.5	16.1340	3.9413	3223	457	8.8	4.9074	4.2194	3787	555	9.0	12.2441	24.4718
2591	379	8.9	20.6497	13.3146	3254	459	9.4	6.0866	8.3092	3777	557	8.0	12.9914	23.3868
2609	381	8.3	20.7088	16.4486	3258	460	9.0	6.1854	9.2778	3646	558	8.1	13.3922	6.8092
2617	382	9.3	22.4219	17.5120	3356	461	9.0	7.2154	23.0882	3705	559	9.0	13.8248	14.4682
2506	384	8.6	23.4975	0.5909	3238	464	8.9	8.9047	5.9542	3740	560	8.1	15.1949	18.2458
2560	385	8.3	23.8035	8.9825	3202	466	8.6	9.0639	0.4022	3654	561	7.8	15.3973	8.1859
2583	386	8.8	24.3214	11.8489	3304	467	8.6	9.1499	15.8027	3764	565	8.6	17.3100	21.0312
<b>R.A. 1<sup>h</sup> 32<sup>m</sup></b>					3330	468	8.8	9.2876	18.8119	3712	566	9.0	17.4041	15.2947
2762	385	8.3	0.8089	8.9892	3268	471	8.4	9.6724	10.6309	3731	570	9.1	19.9425	17.5034
2788	386	8.8	1.3560	11.8509	3221	472	6.9	9.9292	2.7062	3687	573	9.0	22.7700	11.3218
2875	387	9.2	5.3479	23.7896	3244	476	9.1	11.8989	6.3235	3688	574	8.4	23.7826	11.3468
2763	388	9.1	5.3404	9.2922	3324	478	6.6	13.1708	18.0541	<b>R.A. 2<sup>h</sup> 12<sup>m</sup></b>				
2716	389	6.2	6.4966	3.2741	3283	479	7.8	13.5901	12.7875	3982	574	8.4	0.8121	11.3536
2765	393	9.2	7.9957	9.1744	3307	481	8.8	13.9413	15.6925	3952	577	8.9	4.9266	6.4795
					3357	482	9.0	14.0013	23.5787					
					3247	487	8.6	16.4715	6.7588					
					3332	488	9.2	16.7190	19.4077					
					3230	490	8.6	17.3499	3.5437					



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 2<sup>h</sup> 12<sup>m</sup> (continued)</b>					<b>R.A. 2<sup>h</sup> 28<sup>m</sup> (continued)</b>					<b>R.A. 2<sup>h</sup> 52<sup>m</sup> (continued)</b>				
3999	578	8.6	4.9660	13.3534	4527	686	8.6	23.7261	19.7590	5099	790	8.4	21.7501	14.5013
4034	579	8.1	5.3658	17.3083	4545	690	9.0	24.9162	23.0025	5100	792	9.0	22.5004	14.1790
4088	580	9.4	6.5504	23.9124	4490	691	8.8	25.0628	14.2410	5044	793	8.9	22.8039	6.6024
4089	581	9.4	6.6444	23.8521						5149	794	8.2	26.4661	20.5789
3984	582	9.0	8.5928	11.0323	<b>R.A. 2<sup>h</sup> 36<sup>m</sup></b>					<b>R.A. 3<sup>h</sup> 0<sup>m</sup></b>				
3954	584	8.9	8.9616	7.4388	4731	686	8.6	0.8415	19.7670	5420	794	8.2	3.5895	20.5575
3941	585	8.3	9.2435	6.3058	4752	690	9.0	2.0647	22.9974	5439	796	8.2	6.1796	23.4248
3955	586	9.2	10.0193	6.5812	4685	691	8.8	2.1218	14.2351	5449	806	9.3	13.7193	24.4312
3935	587	9.0	10.3016	5.2539	4680	692	9.1	3.4556	12.7037	5370	809	7.7	15.5457	12.9535
4009	588	8.6	10.9113	13.9410	4654	694	8.9	3.8969	8.5157	5383	810	9.2	16.2198	15.7347
3976	590	8.3	12.8506	9.9410	4732	696	8.6	5.4820	20.0829	5345	815	8.6	18.1932	8.0664
3942	591	9.2	13.5104	5.8069	4756	697	9.0	5.6869	24.5724	5446	818	8.4	18.7649	23.3430
3977	592	9.0	13.5180	10.3755	4656	704	9.3	9.7017	8.4283	5354	820	9.0	19.9740	9.6283
..	594	9.2	13.7617	0.2797	4648	707	8.0	10.9910	7.3348	5360	822	9.2	20.4688	11.7847
3986	595	8.8	15.9372	10.5454	4746	708	7.5	11.0072	9.8639	5432	824	9.2	22.3824	21.7934
4038	596	9.2	16.0668	16.8888	..	711	9.3	12.8943	22.6112	5337	825	9.2	25.3221	5.8900
3946	597	8.4	16.5579	5.4871	4704	713	9.1	14.9419	0.0942	<b>R.A. 3<sup>h</sup> 8<sup>m</sup></b>				
4029	598	8.5	16.6213	16.1540	4639	716	8.8	15.2176	15.5361	5527	825	9.2	2.2958	5.8825
3905	599	9.2	16.7902	0.8154	4641	718	8.9	15.4290	6.8331	5508	826	9.2	2.9539	1.7342
4020	602	8.9	19.5452	15.1298	4710	720	8.0	17.4019	6.3841	5528	827	8.5	3.3940	5.7758
4059	608	9.2	25.8431	19.8910	4764	722	8.9	19.9229	17.3494	5510	829	9.2	5.5974	1.7531
<b>R.A. 2<sup>h</sup> 20<sup>m</sup></b>					4624	723	9.5	21.6217	23.8895	5551	831	8.8	6.4562	9.1766
4307	608	9.2	2.9596	19.8759	4666	725	8.8	22.4013	3.5335	5511	832	9.0	6.5644	1.7559
4252	610	9.1	3.9700	11.1949	<b>R.A. 2<sup>h</sup> 44<sup>m</sup></b>					5603	836	9.2	7.9583	19.4016
4219	612	7.8	4.0186	3.7054	4839	728	9.4	1.1593	10.3036	5596	837	9.0	8.8928	18.3243
4293	614	9.0	4.3711	18.0545	4844	732	9.2	4.5810	11.5381	5517	838	9.0	8.9550	2.4340
4266	617	7.8	6.0107	12.5675	4819	740	9.0	8.8812	5.6998	5615	829	9.0	8.9947	22.7544
4201	622	9.2	7.8630	0.9716	4933	741	9.0	9.5171	24.6696	5532	840	6.8	9.0704	5.8338
4261	623	9.2	8.7331	11.6065	4922	742	9.1	9.5994	22.4623	5564	842	8.3	10.3877	12.4539
4225	626	9.2	10.6625	4.8992	4871	745	7.9	12.9766	15.7356	5539	845	8.0	11.9032	6.2095
4250	627	7.2	11.3406	9.5010	4827	748	8.8	14.8500	7.6960	5565	846	9.4	12.5003	12.8941
4318	628	9.4	11.4640	21.1952	4872	749	9.0	14.9880	15.8709	5533	847	8.7	12.9232	5.2861
4333	630	8.9	12.1892	23.8471	4900	750	8.5	15.0050	19.7802	5579	848	8.7	12.9589	14.8396
4281	633	9.2	16.1886	14.8605	4846	751	8.8	15.2672	11.7832	5631	849	8.6	14.5908	25.0599
4282	636	8.8	18.0577	15.2437	4863	752	9.1	15.5740	14.1695	5632	850	8.8	15.4452	24.9133
4310	637	9.0	19.1454	20.3304	4915	753	8.3	16.0174	21.3399	5593	852	8.2	16.0221	17.9012
4228	645	8.8	25.0381	5.1461	4828	757	8.8	18.7514	7.3437	5599	853	9.4	17.0894	18.6580
<b>R.A. 2<sup>h</sup> 28<sup>m</sup></b>					4909	761	8.4	22.0838	20.9688	5572	854	9.0	17.6936	13.4585
4424	645	8.8	2.0043	5.1413	4860	763	8.2	24.8135	13.3784	5515	858	9.3	19.5657	1.1571
4534	646	8.8	3.2445	21.4630	<b>R.A. 2<sup>h</sup> 52<sup>m</sup></b>					5560	861	8.8	21.3408	12.1200
4435	647	9.0	3.8429	7.1360	5078	763	8.2	1.8637	13.3745	5585	862	8.2	22.0319	15.3956
4514	651	8.6	5.5288	18.0858	5092	764	9.4	2.7678	13.9689	<b>R.A. 3<sup>h</sup> 16<sup>m</sup></b>				
4471	653	9.0	6.0658	11.8132	5034	767	9.0	4.4515	6.5421	5749	866	9.0	3.2127	9.2092
4454	654	9.0	6.1013	9.2007	5103	769	9.0	6.9314	15.3874	5729	867	9.0	3.2437	6.1923
4444	655	9.0	7.4153	8.2856	5023	771	9.2	8.0847	4.7464	5860	872	9.4	5.9038	25.0177
4516	658	9.5	9.2130	18.1181	5038	772	8.4	8.5449	6.4354	5758	878	9.0	8.4968	10.1671
4415	660	8.8	9.6825	2.8801	5040	775	8.5	10.7923	6.5639	5833	879	8.4	9.5208	22.4531
4404	664	9.1	11.9106	0.7389	5118	776	8.6	11.0092	17.5416	5852	880	8.8	11.1320	24.0758
4505	665	9.1	12.7035	16.5730	5012	778	9.0	13.9079	2.5261	5744	882	9.2	13.1878	8.2813
4437	667	8.1	13.9623	6.7580	5084	779	8.9	14.4525	13.2755	5843	883	8.2	13.4116	23.5828
4479	670	9.0	15.6177	13.5481	5146	782	9.5	16.6986	20.2084	5795	884	9.5	14.1047	14.6133
4447	672	8.3	16.7698	7.8513	5017	783	8.2	16.8676	3.9244	5712	886	8.0	15.3511	2.8809
4407	676	8.6	19.7870	1.2576	5013	784	9.2	18.1356	3.2729	5762	887	9.2	16.6687	9.8935
4539	677	7.9	19.7931	21.7391	5153	786	9.4	19.7133	21.6831	5726	889	9.4	18.4713	5.0307
4429	680	9.0	20.5104	5.1710	5161	788	9.3	21.1280	22.7643	5796	891	9.1	19.4552	15.3615
4450	683	9.4	22.0607	7.8627										
4489	684	9.3	22.5162	14.2827										
4532	685	8.1	22.7371	19.9941										



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 3<sup>h</sup> 16<sup>m</sup> (continued)</b>					<b>R.A. 3<sup>h</sup> 40<sup>m</sup> (continued)</b>					<b>R.A. 4<sup>h</sup> 4<sup>m</sup></b>				
5835	892	6.9	20.7468	22.5711	6510	989	8.5	16.1262	18.4737	7007	1080	8.0	0.7157	1.0157
5751	895	8.4	21.2476	8.5533	6491	990	8.6	16.9884	13.7629	7137	1083	9.4	2.3136	14.4647
5830	897	9.2	22.8374	20.8163	6543	994	9.1	19.1507	22.9256	7008	1084	9.4	3.3101	0.6329
5705	901	7.7	23.8169	1.0814	6545	999	8.0	21.5089	23.0028	7138	1085	8.9	3.4323	14.3104
<b>R.A. 3<sup>h</sup> 24<sup>m</sup></b>					6487	1001	9.1	23.3026	12.8941	7177	1086	9.2	3.8876	18.8414
6008	901	7.7	0.7417	1.0880	6423	1002	9.0	23.6539	3.9393	7009	1087	8.8	3.9046	0.7883
6034	908	9.3	7.0624	5.4547	<b>R.A. 3<sup>h</sup> 48<sup>m</sup></b>					7049	1093	9.3	8.0713	5.6478
6014	909	9.3	7.0748	2.5127	6620	1002	9.0	0.6078	3.9477	7039	1094	7.5	8.4500	4.0888
6056	910	9.2	7.1534	7.8201	6719	1005	9.0	4.1536	22.1813	7139	1095	9.0	9.4738	14.0574
6139	911	9.2	7.4751	20.6956	6672	1006	9.2	4.2190	12.3386	7160	1097	9.0	10.4640	16.5282
6105	913	9.4	8.1522	15.5794	6605	1008	9.2	5.2596	1.0695	7114	1099	9.1	12.1994	12.4104
6047	916	9.1	13.1270	7.4333	6678	1009	7.8	6.1517	13.9555	7185	1100	8.8	12.4946	19.2093
6159	917	9.2	13.7264	22.9131	6673	1010	8.2	6.2433	12.2920	7227	1101	8.9	13.6316	25.0793
6123	918	8.7	15.7697	17.1171	6674	1011	8.3	7.1312	12.8980	7033	1102	7.8	14.4193	2.8558
6112	920	9.0	17.0101	16.5727	6644	1013	8.1	7.6724	0.0256	7217	1103	8.3	14.5120	23.5164
6028	921	9.0	18.4701	3.3521	6707	1014	9.1	8.1822	6.7932	7126	1104	9.4	14.6697	13.6599
6133	924	8.9	20.0653	19.1268	6703	1017	8.6	10.1764	18.5863	7083	1105	8.6	14.6832	9.0230
6080	927	9.0	20.3172	12.4774	6726	1018	9.0	10.7217	18.2446	7073	1106	6.8	15.1768	8.7950
6100	928	7.2	21.1122	14.4568	6689	1021	8.7	12.2688	22.9498	7201	1107	8.5	15.7814	21.8729
6135	929	9.1	21.5736	19.1764	6609	1022	9.0	12.9226	15.5806	7208	1109	8.6	16.0620	22.1903
6013	930	9.2	22.4212	1.2981	6705	1023	7.9	12.9760	1.4829	7143	1110	9.0	16.2412	14.7914
6102	932	9.0	25.2217	14.6478	6658	1025	9.3	13.9243	17.6079	7095	1111	9.3	16.7868	10.5380
<b>R.A. 3<sup>h</sup> 32<sup>m</sup></b>					6651	1032	8.7	19.1493	9.8019	7035	1114	8.4	17.9628	2.7676
6280	932	9.0	2.2848	14.6400	6716	1033	9.2	19.3346	6.9379	7172	1116	9.0	19.3144	17.8565
6290	937	9.0	4.2798	16.4094	6723	1034	8.8	19.3090	20.8324	7228	1117	9.0	19.3520	25.4620
6213	940	9.2	5.7244	2.9911	6700	1035	8.4	19.4556	22.1626	7036	1118	9.2	19.4951	3.1333
6247	942	8.6	7.5638	7.8411	6660	1036	8.5	19.5508	16.6532	7061	1120	8.8	20.0351	6.4600
6240	943	8.4	8.2084	5.8324	6637	1038	9.2	20.7656	9.5096	7146	1122	9.2	21.0300	14.3291
6306	946	9.2	11.0472	19.5693	6685	1039	9.1	20.9939	6.3064	7044	1123	7.2	21.2782	3.7481
6296	947	8.2	11.7810	17.9520	6669	1040	9.0	21.3486	14.7725	7187	1126	6.8	23.0101	19.3928
6308	948	9.6	11.9517	20.7382	6738	1042	8.8	21.7573	10.4306	7120	1128	8.9	25.0570	12.0156
6314	949	5.0	12.2382	22.5787	<b>R.A. 3<sup>h</sup> 56<sup>m</sup></b>					<b>R.A. 4<sup>h</sup> 12<sup>m</sup></b>				
6324	955	9.0	17.0534	24.8638	6945	1047	9.2	2.6298	25.3475	7339	1128	8.9	2.0933	12.0097
6209	956	9.0	17.9103	2.4283	6790	1050	9.0	3.2379	5.6242	7343	1129	9.4	2.5996	13.2635
6227	958	9.2	20.3486	4.0211	6925	1051	8.6	4.0944	22.8800	7344	1131	8.9	3.7349	13.7414
6210	959	8.1	21.1553	2.0031	6806	1053	8.8	6.0069	7.3544	7405	1132	8.7	5.0489	21.7465
6311	960	7.7	21.7513	21.2892	6912	1054	9.1	6.4466	20.9630	7269	1134	7.6	5.8270	3.9705
6260	962	8.8	22.4921	9.1199	6946	1055	9.5	7.0047	24.3975	7327	1136	8.9	6.2622	10.6339
6255	963	9.0	22.8226	8.5845	6901	1057	9.4	8.5444	19.1881	7414	1138	9.0	6.5422	22.0709
6274	964	8.8	22.9186	12.5627	6852	1060	8.6	10.9601	13.9052	7287	1143	7.9	8.5866	6.1759
6235	966	9.0	24.4395	5.1518	6884	1063	9.0	13.1895	16.4223	7427	1144	9.2	9.1148	24.4576
<b>R.A. 3<sup>h</sup> 40<sup>m</sup></b>					6892	1064	8.8	13.7988	17.6665	7289	1145	8.6	9.1764	6.3677
6425	966	9.0	1.4059	5.1528	6917	1065	7.9	14.4610	20.7519	7352	1146	8.9	9.8811	14.8185
6454	969	9.1	2.7125	8.5514	6764	1066	8.4	14.8503	2.7052	7317	1147	7.6	9.8870	9.3508
6529	971	8.8	3.4348	21.2871	6791	1067	9.5	15.1501	5.1743	7280	1152	9.0	13.9683	5.0942
6455	972	8.5	3.9511	8.6430	6765	1068	9.2	15.6309	2.2355	7334	1153	9.0	13.9776	11.4224
6505	975	9.0	5.2031	17.4733	6784	1070	9.1	16.9621	5.0709	7374	1155	9.0	14.2918	16.6754
6518	976	8.0	5.8720	18.5934	6802	1071	8.4	19.2334	6.5926	7407	1156	8.8	14.9065	21.3386
6426	977	8.2	6.1687	4.3965	6874	1072	9.1	19.9394	15.4212	7258	1158	9.0	16.2411	1.2405
6520	978	8.8	6.7127	19.0169	6855	1075	9.2	21.8167	14.2026	7340	1159	8.6	16.6201	12.7359
6435	979	8.3	8.0763	5.7318	6758	1076	8.6	22.0133	1.3621	7365	1161	9.2	17.0134	15.5712
6462	980	8.8	10.9873	10.1293	6839	1077	7.2	23.3169	11.3602	7375	1162	8.4	17.3699	16.7074
6439	983	9.1	12.5337	5.3468	6754	1080	8.0	23.7917	1.0084	7308	1163	8.5	17.6636	8.5774
6463	986	8.4	14.7828	9.6937	6868	1083	9.4	25.2522	14.4725	7386	1166	9.0	18.6725	18.0886
6468	987	9.2	15.0553	10.6359						7429	1169	8.1	19.5471	24.4306
										7310	1170	8.5	20.7821	8.0704
										7294	1172	9.4	22.1613	6.3273
										7357	1173	9.2	22.2973	14.2772
										7370	1175	9.0	22.7271	15.1467
										7408	1176	8.0	22.7230	21.4750
										7322	1178	7.9	23.4161	9.1484



( 199 )



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 5<sup>h</sup> 8<sup>m</sup></b>					<b>R.A. 5<sup>h</sup> 16<sup>m</sup> (continued)</b>					<b>R.A. 5<sup>h</sup> 32<sup>m</sup> (continued)</b>				
9182	1457	9.0	1.9216	18.5151	9274	1578	9.2	23.4113	2.8176	10,176	1689	9.3	21.3811	24.0928
9019	1458	9.2	2.9672	2.7903	9319	1579	9.2	23.7211	7.5575	9,908	1690	8.0	21.9029	0.0935
9236	1459	8.8	3.1897	25.4548	9275	1580	8.4	23.8123	2.6387	9,984	1695	7.6	23.8622	6.9542
9156	1461	9.2	4.1029	16.7339	9256	1581	9.2	24.3736	0.7111	10,084	1696	9.1	24.0064	14.9137
9039	1465	9.2	5.7968	3.6977	9377	1582	6.5	24.5319	13.8295	9,945	1697	9.0	24.1539	2.8455
9022	1466	8.8	5.8358	2.2287						10,057	1698	9.0	24.1138	13.0980
9138	1467	8.9	6.1122	14.7796	<b>R.A. 5<sup>h</sup> 24<sup>m</sup></b>					9,947	1699	8.5	25.1869	3.3353
9024	1470	8.9	7.3939	2.3511						<b>R.A. 5<sup>h</sup> 40<sup>m</sup></b>				
9075	1472	9.2	7.8480	8.2917	9627	1579	9.2	0.7120	7.5651					
9010	1473	8.9	7.8643	1.9339	9573	1580	8.4	0.7530	2.6453	10,328	1695	7.6	0.8468	6.9608
9139	1475	9.0	9.8432	15.0115	9550	1581	9.2	1.2946	0.7131	10,502	1696	9.1	1.0723	14.9187
9013	1478	8.8	11.3532	1.0893	9717	1582	6.5	1.5867	13.8285	10,246	1697	9.0	1.0966	2.8492
9171	1479	8.9	12.1105	17.5789	9738	1583	8.6	2.6362	15.4980	10,453	1698	9.0	1.1612	13.1020
9192	1482	8.8	13.1711	19.8682	9551	1585	9.2	3.2119	0.2754	10,262	1699	8.5	2.1348	3.3287
9193	1484	8.8	13.3289	19.8912	9653	1588	8.9	4.4386	9.4562	10,458	1702	8.8	3.6594	12.1434
9049	1487	4.5	14.2645	4.8836	9564	1591	8.4	4.9042	1.5801	10,671	1705	8.4	4.6899	22.1998
9004	1488	8.4	14.5706	0.7729	9553	1593	9.3	5.7531	0.8329	10,334	1706	8.4	4.7205	6.7804
9240	1491	8.4	15.1868	25.9693	9655	1594	8.6	6.0985	9.6860	10,314	1707	9.0	4.7197	5.3929
9209	1493	8.6	15.4093	21.5431	9629	1605	8.6	8.3537	7.8739	10,408	1708	7.0	5.0648	10.3252
9130	1494	7.7	15.6567	13.3196	9605	1606	8.2	8.6525	6.0034	10,267	1710	9.1	5.1209	3.2181
9151	1497	8.0	16.1473	15.6842	9630	1607	7.8	9.2625	8.2624	10,547	1712	9.0	5.6447	16.1966
9099	1500	9.0	17.5015	10.2908	9791	1615	8.6	12.9335	12.2054	10,202	1713	9.1	5.7115	0.4666
9100	1501	8.0	17.5832	10.3803	9775	1618	8.6	14.6194	19.0901	10,270	1716	9.4	6.5877	3.5305
9042	1502	9.2	17.6069	3.9270	9558	1619	8.3	15.0163	17.8176	10,625	1717	7.2	6.7745	19.9564
9006	1504	7.9	18.2132	0.2338	9762	1621	8.8	16.5397	0.8601	10,409	1718	9.0	6.8688	10.4789
9007	1510	9.2	20.8051	0.7053	9661	1622	9.0	16.6743	16.9890	10,387	1719	9.1	6.9987	9.6437
9014	1511	9.0	20.9386	1.0298	9568	1623	9.0	17.0630	10.0099	10,483	1721	8.2	7.6541	13.7827
9009	1512	9.2	21.9247	0.4113	9576	1625	9.4	18.5340	1.3934	10,705	1722	9.2	8.0085	23.0804
9066	1515	8.8	23.1176	6.5893	9635	1627	9.1	19.0597	3.0325	10,767	1723	8.9	8.2725	25.4587
<b>R.A. 5<sup>h</sup> 16<sup>m</sup></b>					9727	1632	9.0	20.5168	8.1480	10,643	1725	9.4	8.3836	20.7945
9394	1520	7.0	2.5628	16.0511	9781	1634	9.2	21.3107	13.5314	10,707	1727	9.2	8.8418	22.9600
9455	1523	9.1	3.4859	19.7424	9589	1635	9.0	21.3890	18.0212	10,756	1728	8.8	9.0079	24.7893
9395	1524	9.0	3.4778	16.2396	9666	1638	9.2	22.6120	3.4533	10,317	1732	8.6	11.1261	5.5035
9506	1525	7.8	4.2944	23.6150	9854	1639	8.0	22.9627	9.9381	10,393	1739	8.6	13.4405	10.0501
9521	1529	9.1	5.1682	24.6754	9825	1641	8.4	23.2292	23.1085	10,438	1740	8.9	13.6929	11.4305
9296	1530	9.4	5.8003	5.3937	9613	1643	9.2	23.4661	20.7010	10,607	1741	8.7	13.9292	18.5379
9287	1531	9.1	6.0901	4.7531	9869	1648	7.8	25.1540	5.7345	10,554	1743	8.6	14.1897	16.5266
9288	1532	7.6	6.3025	4.5402			3.0	25.3335	23.7628	10,234	1745	8.8	14.7640	1.2843
9443	1533	8.6	6.3555	18.7010	<b>R.A. 5<sup>h</sup> 32<sup>m</sup></b>					10,210	1747	9.2	15.8365	0.7157
9321	1534	9.2	6.6503	8.3566	9,973	1648	7.9	2.1262	5.7278	10,212	1753	8.8	16.7224	0.8171
9474	1537	8.4	8.2424	21.1342	10,158	1649	3.0	2.4896	23.7525	10,609	1754	8.6	16.8436	18.4838
9370	1538	9.0	8.9372	13.8531	10,098	1651	8.2	3.2039	16.9696	10,213	1758	8.6	18.1487	0.9054
9331	1539	9.2	9.0625	10.0790	10,050	1652	9.0	3.3642	13.1337	10,419	1759	9.2	18.8208	10.5602
9399	1540	8.9	9.5832	15.6116	9,902	1653	8.8	4.1872	0.1274	10,396	1763	7.8	20.2426	9.2091
9498	1542	9.2	10.0889	23.2008	10,159	1654	8.8	5.1342	23.2677	10,303	1765	7.0	20.6520	4.3065
9401	1544	8.9	11.3172	15.2767	10,074	1657	9.0	6.8724	15.6687	10,344	1766	8.5	20.6888	6.3408
9253	1545	8.6	11.4815	0.3685	10,130	1658	8.8	7.8024	20.4507	10,258	1768	9.2	21.1574	2.7527
9501	1546	9.0	12.5429	22.4750	9,999	1662	8.9	10.9076	8.8633	<b>R.A. 5<sup>h</sup> 48<sup>m</sup></b>				
9281	1547	9.0	12.7239	3.1377	10,041	1666	8.8	11.9486	12.1120					
9264	1550	9.4	14.5061	1.6438	10,017	1669	8.2	12.8995	10.1567	10,912	1772	8.4	2.7277	8.6274
9434	1555	9.0	15.3663	18.0754	10,066	1672	8.9	14.2733	13.9226	11,053	1775	8.6	4.3123	20.3709
9283	1556	9.1	16.4382	4.0154	10,077	1673	9.2	14.7116	15.8047	10,886	1777	8.4	4.7973	7.3419
9351	1559	9.5	16.9494	11.4714	10,019	1675	7.8	15.5015	10.1294	10,876	1779	9.1	5.6760	6.2791
9484	1561	7.1	17.2759	21.4163	10,111	1677	9.0	16.6569	18.8634	11,126	1782	9.0	7.0966	24.5918
9271	1562	8.8	18.0503	2.3327	10,046	1683	7.6	19.2323	12.6913	10,856	1784	8.6	7.1704	3.8055
9265	1563	9.4	19.2248	1.1880	10,068	1684	8.8	19.6774	14.5344	10,816	1786	9.0	7.7467	1.3786
9436	1564	9.0	19.3566	17.4547	9,940	1685	8.1	20.8155	2.7174	10,990	1787	8.7	7.9959	14.8891
9292	1567	9.3	19.8596	4.8803	10,166	1686	8.4	20.7991	23.6734	10,817	1789	9.0	9.0602	1.0764
9410	1568	9.4	20.2021	15.7052	10,167	1687	7.5	21.1730	23.8783	10,819	1790	9.2	9.2786	1.1641
9419	1569	8.8	20.7113	16.8327	10,168	1688	8.2	21.2020	23.6269	11,128	1793	8.6	10.3066	24.1382
9311	1573	9.1	22.1002	6.9968										
9303	1576	8.9	22.7414	5.4146										



Reference No.		Mag.	Standard co-ordinates, 1900.0.		Reference No.		Mag.	Standard co-ordinates, 1900.0.		Reference No.		Mag.	Standard co-ordinates, 1900.0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
<b>R.A. 5<sup>h</sup> 48<sup>m</sup> (continued)</b>					<b>R.A. 6<sup>h</sup> 4<sup>m</sup> (continued)</b>					<b>R.A. 6<sup>h</sup> 12<sup>m</sup> (continued)</b>				
10,970	1797	8.8	11.7723	13.4383	11,689	1900	9.2	5.1402	15.5802	12,149	1996	8.8	17.6360	15.8920
11,057	1799	8.4	12.3570	19.9626	11,575	1901	9.0	5.2204	7.2747	12,068	1998	8.9	18.1057	10.5400
10,822	1800	8.8	12.3929	0.9583	11,653	1902	8.3	5.4286	12.4211	11,985	2005	8.5	19.5936	5.7431
11,058	1801	9.2	12.9199	20.7620	11,528	1903	8.2	5.4171	3.7340	11,972	2007	8.9	20.9894	4.5978
10,916	1808	9.2	13.9570	9.1709	11,757	1905	9.0	6.6511	19.8366	12,197	2011	8.0	22.3443	18.8262
10,922	1810	9.3	14.7520	9.8511	11,852	1906	8.7	6.6816	25.5514	12,209	2013	9.0	22.5946	19.4148
11,140	1811	9.1	15.1195	25.7257	11,853	1907	8.8	6.7003	25.4374	12,226	2016	8.9	23.2187	20.7125
11,097	1812	8.6	15.2902	22.5204	11,636	1909	7.7	7.5681	11.6303	12,153	2018	9.0	24.3239	15.8252
10,823	1813	9.3	15.6201	1.1869	11,576	1910	7.0	7.7700	7.0809	11,937	2019	9.2	24.5726	1.9477
10,873	1814	8.9	15.6778	4.7886	11,561	1911	8.8	7.8347	6.2495	11,938	2021	9.1	24.8244	2.1478
11,010	1815	8.8	15.8493	16.4412	11,539	1912	7.8	7.8853	4.0100	12,272	2023	8.9	25.2167	23.4350
10,859	1816	8.0	16.0153	4.4012	11,795	1913	9.0	9.3911	22.0558	<b>R.A. 6<sup>h</sup> 20<sup>m</sup></b>				
10,824	1818	8.3	16.2154	1.3470	11,816	1914	8.5	9.7244	22.6571	12,585	2018	9.0	1.3991	15.8262
10,983	1821	8.6	17.9519	14.5148	11,638	1916	9.2	10.8376	11.3175	12,320	2019	9.2	1.5062	1.9477
11,099	1823	8.3	18.8952	22.4923	11,782	1917	8.9	10.8580	20.1323	12,321	2021	9.1	1.7600	2.1450
11,082	1824	8.8	19.0496	21.7270	11,709	1920	9.2	11.4063	16.3619	12,753	2023	8.9	2.3695	23.4267
10,975	1826	8.4	20.5402	12.8794	11,710	1921	9.2	11.5141	16.8852	12,775	2025	9.1	2.8361	24.3727
10,944	1830	8.7	22.5359	10.9881	11,711	1924	9.0	13.2005	16.8653	12,524	2026	7.9	2.8561	12.2367
11,143	1831	9.0	22.5085	25.3204	11,660	1928	9.0	15.4330	12.8880	12,586	2027	9.0	3.1904	15.1821
10,812	1832	7.9	23.0294	0.0972	11,713	1929	8.0	15.4369	16.2965	12,732	2028	8.8	3.2389	22.4772
11,118	1835	8.0	23.6103	23.7680	11,532	1939	8.9	15.6969	3.6613	12,756	2029	8.7	3.4182	23.9639
10,925	1836	8.3	23.7656	9.8989	11,533	1937	9.4	18.3169	3.7638	12,441	2030	8.3	3.4823	8.5984
11,017	1838	8.2	24.0661	16.0781	11,769	1938	9.0	18.7139	19.4557	12,341	2034	8.7	3.9755	2.8893
11,121	1839	9.0	24.4228	23.2099	11,701	1939	8.7	18.7527	15.2764	12,486	2035	7.8	4.0154	10.1062
11,018	1840	9.0	24.5268	16.5786	11,788	1940	9.1	19.8891	20.5777	12,655	2036	9.0	4.1790	18.7183
<b>R.A. 5<sup>h</sup> 56<sup>m</sup></b>					11,584	1942	8.5	21.2896	7.8286	12,794	2041	8.7	5.8078	25.4728
11,426	1835	8.0	0.7666	23.7772	11,629	1943	8.6	21.5056	10.6869	12,423	2044	8.7	6.3313	7.6266
11,259	1836	8.3	0.7803	9.9065	11,546	1945	9.0	21.9184	4.4373	12,466	2045	8.0	7.0751	9.1870
11,341	1838	8.2	1.1439	16.0820	11,755	1946	8.6	22.2281	18.0756	12,758	2047	2.6	8.1330	23.8805
11,430	1839	9.0	1.5734	23.2099	11,513	1953	8.8	24.8887	1.4297	12,570	2050	9.3	9.1853	14.7183
11,342	1840	9.0	1.6097	16.5776	11,631	1953	8.9	25.0486	10.4659	12,405	2056	7.5	10.8296	5.9828
11,324	1842	9.3	4.8002	14.5564	<b>R.A. 6<sup>h</sup> 12<sup>m</sup></b>					12,637	2058	8.8	11.7117	17.6641
11,461	1844	7.3	4.8964	25.8122	11,911	1952	8.8	1.8170	1.4260	12,739	2059	8.6	12.2898	22.9758
11,444	1851	8.4	6.8535	24.9698	12,055	1953	8.9	2.0690	10.4601	12,351	2061	7.6	12.6403	3.0460
11,436	1853	9.0	9.7610	23.9517	12,227	1954	7.8	2.6047	21.8800	12,352	2062	8.9	12.6998	3.0447
11,327	1854	9.2	10.0951	14.0314	12,143	1955	9.0	2.6418	15.5843	12,471	2063	8.7	12.9310	9.7790
11,265	1856	9.0	10.4476	10.4909	11,901	1957	9.0	3.0591	0.2002	12,382	2069	8.8	15.8345	5.0221
11,266	1858	7.6	10.6291	10.5140	12,076	1958	8.8	3.2286	11.4328	12,513	2071	8.7	17.2346	11.1923
11,328	1860	8.6	11.1523	14.0423	11,926	1961	9.0	3.9489	2.3491	12,475	2072	8.8	17.2520	9.1042
11,383	1870	8.5	15.2412	19.0960	11,927	1963	9.2	4.0573	2.1736	12,334	2073	8.8	17.5849	2.7031
11,219	1872	7.5	16.1717	5.8073	12,182	1966	8.8	6.8956	18.3949	12,436	2078	7.6	18.9159	7.5215
11,347	1874	9.1	16.5011	16.6342	12,026	1967	8.9	7.1025	8.1260	12,479	2082	8.9	19.6413	9.0985
11,474	1875	8.3	16.8402	25.7566	12,245	1968	8.9	7.1741	22.5731	12,771	2083	9.0	19.9542	24.1795
11,271	1876	9.0	17.4779	10.3681	12,183	1969	8.9	7.2074	18.1548	12,540	2085	8.4	20.2791	12.2847
11,439	1879	8.6	18.9204	23.2034	12,184	1970	9.2	7.2234	18.4309	12,711	2087	8.4	20.9116	20.2663
11,418	1882	8.7	20.6072	22.6057	12,286	1971	8.7	8.1121	25.6359	12,695	2091	9.2	22.8913	19.8295
11,162	1883	7.6	21.1408	1.4907	11,948	1972	9.0	8.1238	3.0648	12,337	2092	9.2	23.3097	1.9169
11,188	1888	9.0	23.7657	2.7360	11,977	1973	8.4	8.2528	5.7004	12,603	2094	9.0	24.3839	15.8505
11,290	1889	9.0	23.8657	11.4972	12,120	1977	8.0	11.5263	12.9545	12,653	2096	7.1	25.0095	17.8624
11,248	1892	8.6	24.8926	8.3490	12,134	1979	9.3	11.7459	13.9683	<b>R.A. 6<sup>h</sup> 28<sup>m</sup></b>				
<b>R.A. 6<sup>h</sup> 4<sup>m</sup></b>					12,030	1980	6.6	12.0468	8.0118	13,093	2094	9.0	1.4594	15.8515
11,526	1888	9.0	0.7074	2.7433	11,968	1981	8.9	12.0638	3.7801	13,123	2096	7.1	2.1054	17.8564
11,634	1889	9.0	0.8967	11.5031	12,206	1982	9.1	12.1690	19.4634	13,180	2100	8.2	4.2624	21.9876
11,590	1892	8.6	1.8915	8.3452	12,268	1983	8.6	12.6246	23.8629	13,052	2101	7.8	4.9213	12.3528
11,835	1894	8.4	2.6465	24.4298	12,189	1985	8.4	13.2995	18.6594	13,113	2104	9.2	5.6330	16.6913
11,851	1895	8.0	2.8377	25.8913	11,928	1986	9.1	13.7303	2.1682	12,850	2105	8.8	5.6952	0.9238
11,559	1896	6.2	2.9973	6.7499	11,930	1988	8.8	14.4791	1.8042	13,034	2111	8.1	7.1108	11.4912
11,527	1899	8.7	4.4101	2.7242	12,103	1990	8.8	15.8016	12.5757	13,201	2114	8.1	8.0572	23.1697
					11,954	1992	8.8	16.4702	3.5233					
					12,065	1993	6.6	16.5770	10.3445					
					12,051	1994	8.5	16.9096	9.5843					



Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.
<b>R.A. 6<sup>h</sup> 28<sup>m</sup> (continued)</b>				
12,893	2118	8.6	8.5201	3.5774
12,988	2120	8.3	9.2462	8.5414
12,960	2121	8.4	9.2590	7.8646
12,909	2122	8.8	10.1928	4.9280
12,895	2123	9.0	10.2906	3.3086
13,128	2124	9.0	10.3303	18.0493
12,927	2126	9.1	10.7229	5.7599
13,226	2128	7.5	11.6407	24.8859
13,156	2132	9.0	12.7769	19.6818
13,228	2133	9.2	13.0680	24.9638
13,171	2136	8.1	14.0789	20.6256
13,131	2139	9.1	15.2166	17.9585
13,231	2141	8.6	15.8094	25.0124
13,240	2142	9.2	16.3750	25.8455
12,899	2146	9.0	18.1713	3.6108
12,856	2147	7.8	18.3204	0.2179
12,857	2148	8.6	18.9146	0.4800
13,103	2149	9.0	19.1197	16.4460
12,876	2151	9.0	19.6848	2.1656
12,860	2152	8.6	19.7796	0.5121
13,216	2155	9.0	20.0563	24.3870
13,044	2157	9.1	21.1587	12.3231
...	2160	8.0	21.8450	0.1361
12,878	2162	7.4	22.6905	1.2756
13,010	2163	8.6	23.0865	9.6894
13,090	2165	8.8	25.4041	14.8540
<b>R.A. 6<sup>h</sup> 36<sup>m</sup></b>				
13,516	2165	8.8	2.4693	14.8441
13,320	2166	8.0	3.0238	4.2925
13,682	2171	8.0	4.1268	23.3598
13,483	2175	8.1	5.1807	12.1323
13,521	2179	8.2	5.9158	14.6442
13,443	2182	7.5	7.6385	10.4257
13,685	2183	9.2	7.9687	23.5853
13,667	2184	9.1	8.0455	23.1310
13,304	2185	7.0	8.0340	3.0730
13,430	2189	9.0	8.7189	9.6417
13,342	2191	8.8	8.8267	5.2711
13,384	2194	8.5	9.6949	7.7522
13,266	2195	8.5	9.8097	1.4184
13,556	2196	9.2	9.8327	15.6935
13,603	2197	9.2	9.9890	18.2936
13,604	2199	9.0	10.1876	18.4545
13,557	2203	8.2	11.9387	15.4229
13,344	2204	8.1	12.4800	5.6285
13,258	2206	8.4	12.9707	0.0335
13,637	2209	8.4	14.4473	21.2209
13,693	2211	9.0	15.2206	23.5080
13,588	2212	8.0	16.2481	18.2632
13,288	2213	9.1	16.5858	2.3722
13,674	2215	9.2	16.9314	23.3627
13,290	2216	9.2	17.0381	3.0648
13,640	2219	9.0	17.4432	21.1156
13,560	2221	9.1	18.3056	16.2785
13,642	2223	9.0	18.9673	21.3241
13,291	2224	8.9	19.0437	2.5640
13,275	2227	9.2	20.6210	1.6914
13,621	2228	9.2	20.6843	19.8143
13,510	2231	9.0	21.7221	13.7128
13,260	2232	7.8	22.2465	0.4066



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
R.A. 7 <sup>h</sup> 0 <sup>m</sup> (continued)					R.A. 7 <sup>h</sup> 8 <sup>m</sup> (continued)					R.A. 7 <sup>h</sup> 16 <sup>m</sup> (continued)				
14,973	2437	8.4	13.9247	2.5834	16,011	2530	9.2	13.7526	1.5014	17,362	2652	9.2	22.3616	5.9120
15,742	2439	8.7	14.0994	20.5199	15,971	2531	9.0	14.0317	0.7695	17,857	2654	8.9	22.5184	19.4037
15,353	2440	9.1	14.1927	11.7873	16,203	2535	8.8	14.7117	6.7722	17,709	2655	7.9	22.8419	15.6402
15,661	2444	8.9	14.9914	18.5086	16,856	2542	8.6	16.0800	20.1430	17,245	2656	9.0	23.0900	0.8497
15,082	2445	8.6	15.2328	5.4318	16,086	2543	8.1	16.5877	2.9840	18,011	2662	9.0	24.8171	23.6418
15,130	2446	8.9	15.3811	6.7948	16,758	2544	9.0	16.7062	17.3285	17,247	2663	5.9	24.9713	1.0874
15,014	2447	9.0	15.6969	3.3273	16,253	2547	9.2	17.8859	7.2410	R.A. 7 <sup>h</sup> 24 <sup>m</sup>				
15,181	2450	8.3	16.1990	7.5007	17,009	2548	9.0	17.9638	22.4929	18,919	2662	9.0	1.9721	23.6377
15,400	2451	9.2	16.3099	12.2985	16,501	2556	9.4	19.9127	12.3012	18,121	2663	5.9	1.8961	1.0827
15,135	2452	8.8	16.6269	6.3940	16,318	2560	9.1	22.5136	8.5661	18,541	2668	9.0	3.8125	13.4227
15,019	2454	9.2	17.0955	3.7245	16,022	2561	7.9	22.8904	1.7374	18,213	2669	9.0	3.8077	4.1564
15,087	2456	8.9	17.3250	5.2353	16,976	2564	9.0	23.1073	21.7290	18,767	2672	8.6	4.7530	19.2823
14,947	2458	8.8	18.0094	1.7059	16,263	2565	8.8	23.4597	7.9070	18,498	2674	8.6	5.4413	13.0700
15,432	2459	9.1	18.0888	13.7350	16,608	2568	8.0	23.7466	14.4607	18,927	2677	8.4	6.0238	24.2854
15,704	2461	9.4	18.7817	19.7951	16,664	2569	9.2	23.7968	15.4556	18,928	2680	8.2	6.3724	24.0804
15,234	2463	9.1	19.9577	8.1089	16,265	2570	8.2	24.0120	7.4966	18,577	2682	9.1	6.6941	14.7590
15,280	2465	8.6	20.2813	9.3909	16,326	2573	9.0	24.9837	8.3448	18,810	2685	8.8	7.0713	20.6243
15,675	2466	9.1	20.3871	18.5658	R.A. 7 <sup>h</sup> 16 <sup>m</sup>					18,216	2686	9.0	7.2655	4.3720
15,281	2467	9.1	20.9131	9.1241	17,636	2568	8.0	0.8079	14.4685	18,578	2688	9.1	8.0384	14.4071
15,411	2469	9.3	21.9007	12.8036	17,676	2569	9.2	0.8683	15.4625	18,105	2690	8.8	8.4504	0.4279
15,195	2470	9.2	22.1662	7.6151	17,373	2570	8.2	1.0022	7.5013	18,812	2691	6.8	9.2174	20.9634
15,148	2472	9.2	23.1116	6.0055	17,410	2573	9.0	1.9825	8.3400	18,652	2692	9.0	9.9038	17.0935
15,630	2474	9.0	23.5034	17.8212	17,299	2577	9.2	3.1144	4.4741	18,195	2696	9.1	11.3456	3.1663
15,099	2477	9.0	23.9458	5.5236	17,440	2578	9.1	3.7319	9.5248	18,259	2701	9.0	13.3637	5.2443
15,634	2480	8.4	24.4084	17.8010	17,680	2579	8.6	3.9677	15.0521	18,658	2703	9.1	14.9410	16.7088
14,922	2481	9.2	24.5757	0.3968	17,867	2580	8.2	4.1581	20.1766	18,111	2704	8.9	14.9744	0.3289
15,717	2482	9.2	24.8260	19.1596	18,052	2582	9.0	4.6501	25.3054	18,590	2707	8.0	15.4578	14.6554
15,869	2483	8.8	24.8357	23.1880	17,417	2589	9.2	6.6427	8.7270	18,450	2708	8.4	15.4952	10.2301
15,678	2484	9.2	24.9718	18.7390	17,689	2590	9.0	6.6691	15.7313	18,143	2710	8.4	16.0547	1.8308
R.A. 7 <sup>h</sup> 8 <sup>m</sup>					17,442	2591	9.1	7.2091	8.7795	18,707	2711	8.2	16.1869	17.4103
16,723	2474	9.0	0.5990	17.8312	17,603	2592	9.2	7.2504	13.1046	18,662	2713	8.8	16.5224	16.4929
16,142	2477	9.0	0.9159	5.5294	17,343	2593	7.4	7.6005	6.5654	18,663	2718	8.7	17.0883	16.9039
16,726	2480	8.4	1.5038	17.8010	17,255	2596	9.0	7.9085	2.1469	18,900	2819	8.6	17.2447	22.5181
15,950	2481	9.2	1.4935	0.3968	17,985	2597	8.6	8.8235	23.3629	18,481	2721	8.5	17.8670	11.3283
16,837	2482	9.2	1.9353	19.1555	17,610	2601	7.8	8.9420	13.3482	18,596	2725	9.3	18.5361	14.9899
17,028	2483	8.8	1.9861	23.1839	17,987	2602	8.8	9.3165	23.8835	18,598	2727	8.6	18.9653	14.3668
16,774	2484	9.2	2.0767	18.7339	17,876	2603	8.5	9.5435	20.8374	18,821	2728	9.0	19.0592	20.6428
16,145	2488	9.0	2.7540	5.3466	17,422	2605	9.1	9.6174	8.4488	18,483	2730	9.0	19.2815	11.6962
17,124	2489	8.3	2.9350	25.3150	17,773	2606	7.8	9.6943	17.0982	19,015	2733	8.8	19.8646	25.6320
15,992	2491	9.0	3.3956	0.9587	17,280	2607	Var.	9.9542	3.4858	18,748	2736	8.7	20.5737	18.9638
16,778	2493	9.4	3.9787	18.7369	17,455	2612	9.0	12.1608	8.9199	18,906	2737	9.0	20.6462	22.5914
16,382	2494	9.0	4.4639	10.3203	17,531	2613	8.9	12.3300	11.1785	18,751	2740	8.6	21.0071	18.7341
16,031	2496	6.8	4.5026	1.8931	17,914	2615	8.4	12.6103	21.1667	18,171	2741	8.7	21.5651	2.1664
16,887	2498	9.0	4.9519	20.2130	17,209	2617	8.8	13.5280	0.4161	18,525	2742	8.9	21.9784	12.7547
16,034	2501	7.3	5.4171	1.8871	17,426	2621	8.4	14.6137	8.4292	18,527	2743	8.6	22.0263	12.8507
16,842	2502	8.4	5.5742	19.4203	17,284	2623	8.8	15.0908	2.8163	18,529	2744	9.4	22.1749	12.8821
15,995	2503	9.0	5.6020	1.1012	17,214	2624	9.5	15.1636	0.5034	18,427	2749	8.2	23.6911	10.0526
16,940	2504	9.1	5.9494	21.6555	18,037	2626	9.3	16.3065	24.6487	18,671	2752	8.6	24.2934	16.5551
17,132	2507	9.0	6.5384	25.6873	17,270	2628	8.9	16.8261	2.6043	19,019	2753	8.3	24.2799	25.4837
17,091	2509	9.1	6.8615	25.1052	18,000	2632	9.3	17.4622	23.3005	18,388	2756	8.7	24.8163	8.3958
15,960	2510	8.6	7.3248	0.6860	17,887	2633	8.6	17.7110	20.6477	18,284	2757	8.5	25.1396	5.5559
16,579	2511	8.7	7.4893	14.8235	17,271	2634	7.2	18.2249	2.4576	R.A. 7 <sup>h</sup> 32 <sup>m</sup>				
17,040	2513	8.6	8.5013	23.5991	17,890	2636	8.3	18.4063	20.4577	19,443	2749	8.2	0.7074	10.0602
15,964	2514	8.9	8.9221	0.7050	17,828	2638	8.7	19.3629	18.2344	19,719	2752	8.6	1.3761	16.5571
16,583	2515	8.9	9.7023	14.7225	17,394	2639	9.2	19.5357	7.6997	20,084	2753	8.3	1.4537	25.4847
15,965	2517	9.1	9.9724	0.5742	17,288	2640	9.3	19.5896	3.1840	19,373	2756	8.7	1.8155	8.3929
16,585	2518	7.4	10.0137	14.9906	17,396	2641	8.0	19.6669	7.4280	19,252	2757	8.5	2.1100	5.5492
17,099	2520	9.2	10.4599	24.6700	17,893	2642	8.8	19.9700	20.6217	20,085	2758	9.0	2.5563	25.4999
17,100	2521	9.0	10.5275	24.2849	17,853	2645	8.0	20.8746	19.9449					
16,801	2525	9.0	11.7135	19.1328	17,830	2646	9.2	20.9698	18.9135					
17,140	2527	9.0	12.4698	25.5151	17,334	2647	9.0	21.2884	5.5279					



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
R.A. 7 <sup>h</sup> 32 <sup>m</sup> (continued)					R.A. 7 <sup>h</sup> 40 <sup>m</sup> (continued)					R.A. 7 <sup>h</sup> 48 <sup>m</sup> (continued)				
19,110	2759	8.8	2.5594	2.4040	20,203	2904	9.0	11.0039	1.2775	22,630	3019	8.1	17.6872	25.8450
19,588	2760	9.2	2.7837	13.1515	20,168	2905	8.5	11.2237	0.2693	22,505	3022	8.4	17.8023	23.4284
19,890	2765	9.0	3.5985	20.3192	20,207	2906	9.4	11.8001	1.7256	22,362	3024	9.1	18.3747	19.5298
19,590	2768	9.2	4.5132	13.7267	20,555	2907	8.7	11.8113	9.3210	22,310	3025	8.9	18.4244	19.4786
19,968	2774	8.9	5.0565	22.6944	20,208	2908	9.2	11.9516	0.9308	22,247	3026	8.9	18.6528	17.5899
19,895	2775	9.1	6.0343	20.1616	21,172	2909	8.6	12.3800	20.4894	22,596	3027	9.0	19.1723	24.9065
19,055	2776	7.6	6.3565	0.6992	20,803	2911	8.4	13.3174	13.5986	22,510	3028	8.8	19.9588	22.6958
19,498	2782	9.0	8.4664	11.7455	21,079	2913	8.2	13.6683	18.4338	21,897	3031	9.0	20.8098	10.7305
19,724	2784	9.0	8.7532	16.3793	20,566	2916	9.0	14.2493	8.9403	21,631	3038	9.2	23.1583	4.4733
19,727	2785	8.2	9.3677	16.9963	20,212	2917	8.7	14.2864	1.7884	21,632	3039	9.0	23.3132	4.7250
19,161	2786	8.6	9.5624	3.1818	21,081	2918	8.8	14.4641	18.8117	21,856	3042	9.5	23.6818	9.6895
19,684	2788	9.0	9.6753	15.2058	21,268	2920	9.0	15.3502	22.5182	22,199	3043	9.2	23.7683	16.8248
19,943	2791	8.8	9.8447	21.4903	21,378	2922	9.0	15.3844	24.7886	22,264	3045	9.0	24.3627	17.8705
19,553	2794	9.0	11.2216	12.2454	20,363	2924	8.5	15.4246	5.1286	21,669	3046	8.8	24.8133	5.3602
19,423	2798	8.5	11.9199	9.0643	20,877	2929	9.2	16.5701	14.1021	21,719	3048	9.3	24.8465	7.0897
19,946	2799	8.8	11.9406	21.4363	20,367	2934	9.2	17.6081	5.0082	21,583	3049	8.2	24.8915	4.1923
19,861	2800	8.6	12.3246	20.0549	21,032	2935	9.0	17.6101	17.5622	R.A. 7 <sup>h</sup> 56 <sup>m</sup>				
19,555	2803	8.9	12.3802	12.6445	21,089	2936	9.0	17.6275	18.1701					
19,093	2804	8.6	12.4877	1.7064	21,145	2939	9.0	17.9990	20.1472	22,964	3042	9.5	0.6944	9.6972
19,690	2808	9.4	12.9083	15.7510	20,702	2944	9.2	19.0938	11.9047	23,218	3043	9.2	0.8538	16.8317
19,212	2818	9.3	14.6820	4.8417	20,469	2945	9.2	19.6471	7.2860	23,313	3045	9.0	1.4588	17.8715
19,215	2822	9.2	15.7718	4.0925	20,293	2949	9.1	21.2250	3.7024	22,802	3046	8.8	1.7817	5.3573
19,172	2827	8.4	16.2367	3.3004	20,936	2950	9.2	21.3793	15.7780	22,882	3048	9.3	1.8325	7.0860
19,703	2829	9.2	16.7468	15.3437	21,231	2954	9.2	22.1042	22.0300	22,770	3049	8.2	1.8480	4.1886
19,649	2832	9.2	17.8520	14.4849	20,938	2958	9.1	24.3440	15.8095	22,927	3053	9.4	3.9298	8.2267
19,135	2835	9.1	19.5334	2.8583	20,335	2960	8.8	24.7561	4.5618	23,446	3054	8.8	4.2474	21.3325
19,181	2838	8.9	19.9193	3.4289	20,224	2961	9.0	24.7955	1.2410	22,682	3056	9.3	4.5377	1.2437
19,139	2840	8.6	21.0065	2.0791	20,899	2962	8.4	25.2316	14.9289	23,449	3062	8.8	5.0254	21.7093
20,037	2841	9.2	20.9294	23.8422	21,287	2963	9.3	25.2825	22.3734	23,321	3063	8.9	6.2328	18.8080
19,324	2844	9.0	21.1910	6.4580	R.A. 7 <sup>h</sup> 48 <sup>m</sup>					23,542	3066	8.5	7.1793	24.0259
19,401	2845	7.6	21.3113	8.4294	22,109	2958	9.1	1.4191	15.8105	23,018	3070	8.3	8.3585	10.4333
20,076	2846	9.2	21.3031	25.2325	21,587	2960	8.8	1.7163	4.5598	22,658	3071	9.4	8.4273	0.4475
19,327	2847	Var.	21.6363	6.0405	21,484	2961	9.0	1.7218	1.2382	22,974	3072	8.8	8.4651	8.9404
19,917	2849	7.9	22.0328	20.7185	21,484	2961	9.0	1.7218	1.2382	22,936	3073	8.6	9.3779	7.8981
19,919	2852	9.2	22.5386	21.1504	22,049	2962	8.4	2.2976	14.9210	22,861	3074	8.2	9.4141	5.9295
19,713	2853	8.6	23.2838	15.8566	22,430	2963	9.3	2.4245	22.3643	23,078	3075	8.6	9.5968	11.9410
19,241	2854	8.6	23.3486	4.9622	22,476	2965	8.8	2.8087	23.1592	23,084	3077	9.2	11.1660	12.6617
19,576	2855	9.0	23.4506	12.3538	22,004	2966	9.2	3.3288	13.8004	22,983	3079	8.2	11.9563	9.1487
19,922	2859	9.4	24.3813	20.6863	21,488	2968	8.3	3.3103	2.0908	23,551	3081	8.9	12.0992	23.7446
19,963	2860	9.3	24.3789	21.7236	21,768	2970	8.8	4.4984	8.2997	23,373	3082	9.0	12.1715	19.8087
R.A. 7 <sup>h</sup> 40 <sup>m</sup>					21,966	2971	6.9	4.8757	12.6991	23,467	3083	8.2	12.5013	21.7579
					21,921	2973	9.0	5.3638	12.0866	23,027	3085	8.4	12.9099	10.0937
21,154	2859	9.4	1.5062	20.6873	22,480	2976	8.6	6.0895	22.6098	23,413	3086	8.3	12.9695	20.8654
21,193	2860	9.3	1.5144	21.7246	21,779	2981	9.0	7.8166	8.3674	23,290	3087	9.3	13.1728	17.3124
20,300	2864	9.0	2.7394	4.3520	21,930	2982	8.8	8.6939	11.5825	22,788	3089	9.4	13.3552	4.5206
20,302	2866	9.2	2.9263	4.0767	21,491	2983	8.5	8.7039	1.2676	23,060	3093	8.9	14.8468	11.5974
20,721	2870	8.2	3.4285	11.9642	22,574	2985	7.9	9.1004	24.9204	22,867	3094	9.3	15.5471	6.6340
21,297	2871	9.2	3.5601	23.7652	21,464	2989	8.9	9.7839	0.8826	23,253	3100	9.2	17.3008	16.8428
20,234	2874	8.8	4.5589	1.7841	21,601	2990	8.2	9.8544	5.2142	22,957	3102	9.0	18.7032	8.4291
20,839	2878	9.4	6.2413	14.0206	21,831	2991	8.5	9.9897	10.2327	23,302	3106	9.0	19.2001	17.7831
21,355	2879	8.8	6.3409	24.6939	22,579	2994	8.8	11.0656	25.4035	22,873	3107	8.6	19.5132	6.1869
20,662	2880	8.6	6.4569	11.5537	22,068	2995	8.9	11.1451	14.5597	22,707	3108	9.0	20.7014	1.2405
20,237	2883	8.8	6.8428	2.1897	21,734	2996	9.0	11.1948	7.4046	22,828	3109	8.4	21.0100	5.8468
21,399	2884	9.4	6.9677	25.3249	22,290	2999	8.3	12.1064	19.2990	22,708	3110	9.2	21.0598	1.9169
20,196	2886	9.0	6.9666	1.5747	21,651	3002	8.9	12.6758	6.1135	23,206	3111	9.4	21.1162	15.0824
20,387	2890	9.4	7.7112	5.9164	22,449	3003	8.8	12.7324	22.1261	22,794	3114	8.9	22.1639	3.9368
20,845	2893	9.4	8.0903	14.9736	21,880	3006	9.2	13.3685	11.0040	23,258	3116	9.2	22.5020	16.4126
21,062	2895	9.0	8.3360	18.5061	22,135	3009	8.9	14.2654	16.0639	22,711	3118	8.5	22.7909	1.7355
20,609	2897	7.8	8.6217	10.9107	21,740	3012	9.0	15.1278	7.4299	22,764	3120	8.9	23.4280	3.6586
20,790	2899	8.9	9.5068	13.4658	21,742	3014	8.8	15.3484	7.7732	23,108	3121	9.2	23.6245	12.7998
20,964	2901	8.4	10.5666	16.9057	21,980	3015	9.0	15.9422	12.5834	23,310	3124	7.5	24.5243	17.6170
21,209	2903	8.9	10.9441	21.4925	21,745	3017	8.6	16.3179	8.1208	22,917	3126	9.1	24.7107	7.7642



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
<b>R.A. 8<sup>h</sup> 4<sup>m</sup></b>					<b>R.A. 8<sup>h</sup> 12<sup>m</sup> (continued)</b>					<b>R.A. 8<sup>h</sup> 20<sup>m</sup> (continued)</b>				
24,058	3121	9.2	0.6689	12.8085	24,806	3242	9.1	4.7519	17.4177	25,011	3343	8.5	13.6155	0.4317
24,205	3124	7.5	1.6179	17.6160	24,707	3243	8.8	5.2315	11.3257	25,279	3344	9.5	13.6283	11.1651
23,890	3126	9.1	1.7036	7.7622	24,808	3244	8.5	5.6476	17.3690	25,253	3345	9.2	13.6482	10.2981
24,280	3132	9.0	2.9374	19.0601	24,908	3245	9.0	5.6921	23.2527	25,146	3348	9.2	14.3561	6.4876
23,955	3133	8.0	3.1961	9.8930	24,826	3250	8.9	7.2545	18.2942	25,203	3349	8.2	15.5637	8.8981
24,028	3134	9.2	3.3709	12.2600	24,728	3252	8.0	8.3593	12.6839	25,366	3350	7.2	16.1458	14.3598
23,822	3135	8.9	3.4016	5.5043	24,812	3253	8.7	8.5148	17.7320	25,604	3353	9.1	17.5891	22.9246
23,352	3139	8.9	3.8600	21.4219	24,777	3254	9.0	8.6014	15.6974	25,573	3355	8.0	18.0198	21.9310
	3140	9.2	4.0116	25.8549	24,536	3255	8.1	9.2808	2.4878	25,609	3359	8.2	19.4714	23.1411
24,413	3143	9.2	4.9824	23.0143	24,590	3256	8.8	9.6521	5.0578	25,611	3360	9.1	20.0317	22.9945
23,714	3144	9.4	4.9358	1.9418	24,519	3258	9.2	10.1621	1.5040	25,068	3362	9.0	20.8055	3.5097
23,740	3146	8.4	5.3256	2.3893	24,911	3259	9.2	10.6331	23.3405	25,015	3363	9.4	21.0445	0.4543
24,464	3147	8.8	5.5362	25.3141	24,749	3260	9.2	11.4914	13.6845	25,016	3366	8.8	21.7741	0.5465
24,434	3148	9.2	5.6269	24.5661	24,847	3261	8.2	11.8305	19.6105	25,186	3367	8.4	22.4939	7.5510
23,865	3149	9.4	5.6335	6.7620	24,539	3263	9.4	12.0076	2.5831	25,453	3368	8.8	23.2664	17.3632
23,866	3150	9.4	5.6789	7.3140	24,815	3264	9.0	12.1974	17.5568	25,400	3370	8.9	23.4476	15.6501
23,868	3151	9.1	6.3135	7.2620	24,522	3265	7.8	12.6900	1.1398	25,578	3371	8.8	23.4453	21.4905
24,099	3154	9.5	6.8356	13.7379	24,596	3268	8.6	13.2083	4.9906	25,131	3372	8.8	23.7818	5.6938
24,035	3155	8.8	7.0455	11.9405	24,503	3271	8.9	13.8454	0.1453	25,345	3373	8.9	23.8182	14.0001
24,068	3157	8.0	7.6109	13.1294	24,752	3272	9.0	15.0084	13.9292	25,348	3375	8.8	24.2180	13.7752
24,290	3159	9.0	8.0041	19.6338	24,543	3273	9.1	15.2155	2.5792	25,402	3376	8.7	24.9493	15.3445
23,685	3164	9.2	8.6279	1.2366	24,504	3274	7.4	15.3086	0.7008	25,403	3377	8.6	24.9510	15.3965
23,804	3165	9.2	8.7169	4.5899	24,635	3277	8.2	17.1431	7.6003					
24,105	3167	7.2	9.3876	13.9699	24,621	3281	8.4	17.7677	6.8982					
24,387	3168	8.8	9.5584	21.8108	24,872	3285	9.2	19.9634	21.2191					
24,215	3169	9.0	10.4241	16.7019	24,921	3287	9.2	20.3184	24.1307					
23,973	3170	9.1	11.5050	9.7155	24,636	3288	8.6	20.7929	7.5800					
23,692	3172	9.6	11.7038	0.5336	24,509	3291	9.4	22.2140	0.6929					
24,295	3173	8.8	12.1225	18.9250	24,938	3292	9.0	22.1288	24.4248					
23,695	3179	9.2	13.7556	1.1789	24,900	3293	9.2	22.5027	22.6543					
24,119	3183	8.6	15.0410	13.8325	24,510	3297	9.2	23.9557	0.5200					
23,697	3184	6.3	15.5983	0.4640	24,721	3298	9.2	24.3076	11.6498					
	3186	9.1	16.3843	25.9909	24,860	3299	9.5	24.5856	19.3528					
24,260	3187	9.0	16.4190	17.9561	24,874	3301	9.2	24.9564	21.1968					
23,937	3188	9.0	16.6394	9.0358										
24,474	3190	9.0	17.1083	25.2462										
23,701	3193	9.2	17.4144	1.2412										
23,661	3194	8.9	17.6840	0.1018										
24,335	3195	8.8	17.8623	20.5318										
24,424	3196	8.7	18.2793	23.7635										
24,123	3197	9.0	18.4924	13.9122										
24,232	3198	9.0	18.5664	17.2043										
23,787	3199	9.0	19.4949	4.3873										
24,125	3200	9.2	19.4677	14.1617										
24,447	3201	8.8	19.5786	24.5669										
24,476	3205	8.4	20.2501	25.6851										
23,820	3206	9.1	20.3813	4.6042										
23,703	3208	9.7	20.5843	0.7280										
23,704	3209	8.6	20.7726	1.2015										
23,984	3211	9.1	21.0743	9.9896										
24,451	3213	9.0	21.5414	24.1092										
23,854	3215	8.4	22.2600	6.3467										
24,197	3219	9.0	22.5699	16.2512										
23,764	3222	9.0	23.5760	2.6241										
24,453	3231	9.0	25.1379	24.2855										
<b>R.A. 8<sup>h</sup> 12<sup>m</sup></b>					<b>R.A. 8<sup>h</sup> 20<sup>m</sup></b>					<b>R.A. 8<sup>h</sup> 28<sup>m</sup></b>				
24,530	3222	9.0	0.5165	2.6334	25,001	3297	9.2	0.8747	0.5256	25,780	3372	8.8	0.7537	5.7013
24,930	3231	9.0	2.2994	24.2772	25,267	3298	9.2	1.3402	11.6518	25,975	3373	8.9	0.8748	14.0069
24,583	3237	9.0	3.5090	4.8212	25,489	3299	9.5	1.6942	19.3518	25,978	3375	8.8	1.2723	13.7782
24,891	3239	8.3	3.8943	23.0693	25,549	3301	9.2	2.0863	21.1918	26,040	3376	8.7	2.0196	15.3395
24,688	3241	8.8	4.5637	10.8917	25,321	3303	8.4	2.5444	13.5396	26,041	3377	8.6	2.2071	15.3915
					25,217	3305	8.4	3.4174	9.2486	26,157	3381	8.9	2.5686	20.5726
					25,461	3308	9.2	3.7580	18.0732	26,101	3384	9.1	3.4289	18.5522
					25,133	3311	8.6	4.5465	6.3011	26,081	3385	8.6	4.1079	17.8630
					25,656	3313	9.2	4.7452	25.4240	25,816	3386	8.6	4.2433	6.6485
					25,407	3316	6.4	5.4762	16.2215	26,257	3389	9.2	4.9883	24.3981
					25,524	3317	8.6	6.0964	20.9698	25,915	3390	9.0	5.0324	10.6285
					25,325	3318	9.6	6.7533	13.5279	25,784	3391	8.4	5.5049	5.5831
					25,083	3319	9.1	7.3905	3.8797	25,983	3392	9.2	6.0468	13.7384
					25,138	3321	9.0	7.8949	6.1183	26,258	3393	8.0	6.1135	25.1572
					25,042	3323	9.0	8.5528	1.9038	25,819	3394	8.2	6.1246	6.9418
					25,298	3324	8.8	9.1420	12.3153	26,193	3397	9.0	7.8976	21.6515
					25,560	3325	9.5	9.5396	21.9935	26,013	3398	8.8	8.0129	14.5478
					25,561	3326	9.4	9.6015	21.9962	26,194	3400	9.0	8.0709	22.2412
					25,301	3327	9.0	9.8210	12.8296	25,865	3403	9.3	8.4773	9.0424
					25,087	3328	8.9	9.8672	4.7992	25,866	3411	9.0	9.3529	9.0255
					25,621	3330	9.3	10.3935	24.0561	25,846	3414	9.2	11.2385	7.5466
					25,043	3331	9.4	10.7181	2.4263	26,289	3415	8.0	11.4347	25.5805
					25,252	3332	8.9	11.0826	10.2322	26,138	3416	9.2	12.3164	19.9413
					25,172	3336	9.2	11.7050	7.6697	25,827	3419	9.2	12.7463	6.4755
					25,597	3337	8.8	11.9946	23.0276	26,063	3421	8.9	13.2411	16.4260
										25,707	3427	9.2	14.6662	0.2184
										26,024	3428	9.2	15.1377	14.6096
										25,873	3429	8.9	15.2251	8.8647
										26,085	3434	9.4	15.9109	18.2311
										26,086	3437	8.8	16.7761	17.7698
										25,875	3439	9.3	16.9770	8.5602
										26,089	3441	8.9	18.1432	17.5694
										25,773	3443	9.0	18.3378	4.6647
										25,836	3444	9.3	19.1868	6.6096
										26,000	3452	8.8	24.2397	13.6460
										26,179	3453	8.6	24.3838	21.1312



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
<b>R.A. 8<sup>h</sup> 36<sup>m</sup></b>					<b>R.A. 8<sup>h</sup> 44<sup>m</sup> (continued)</b>					<b>R.A. 9<sup>h</sup> 0<sup>m</sup> (continued)</b>				
26,539	3452	8.8	1.2927	13.6480	26,909	3576	9.0	22.0736	8.1177	27,563	3685	9.1	18.2259	9.0625
26,686	3453	8.6	1.5132	21.1322	27,031	3578	9.4	22.2565	15.8317	27,552	3686	9.0	18.7958	6.6769
26,669	3456	8.8	2.6179	19.2904	26,887	3579	8.3	22.7636	7.3830	27,700	3687	7.5	19.5586	22.6060
26,560	3459	8.8	3.5223	14.7931	27,178	3582	8.8	24.1536	24.6715	27,658	3688	9.0	19.8545	18.5035
26,495	3460	9.2	4.0625	11.4685	27,179	3586	9.2	25.2974	24.9578	27,675	3692	9.0	22.9080	21.2401
26,702	3464	8.6	5.2504	21.7536	<b>R.A. 8<sup>h</sup> 52<sup>m</sup></b>					27,659	3693	8.2	23.0008	18.5846
26,769	3465	9.1	5.4661	25.6891	27,445	3582	8.8	1.3192	24.6747	27,513	3694	8.8	23.1327	2.1408
26,511	3466	8.9	6.1622	12.2277	27,446	3586	9.2	2.4657	24.9486	27,648	3696	9.2	23.6856	18.3578
26,464	3470	8.5	6.7623	8.8448	27,272	3587	7.6	2.8394	7.9049	27,553	3698	8.8	23.8730	6.8856
26,369	3477	9.2	8.3783	1.4141	27,242	3588	9.1	3.1569	5.5180	27,584	3699	8.0	24.4246	11.2265
26,516	3478	9.0	8.5190	12.4065	27,394	3589	9.3	3.2560	18.8312	<b>R.A. 9<sup>h</sup> 8<sup>m</sup></b>				
26,687	3479	9.0	8.5824	20.5678	27,311	3591	9.0	4.1323	11.2172	27,907	3696	9.2	0.7866	18.3658
26,546	3481	9.0	9.5288	13.7439	27,324	3592	8.0	4.3537	12.7875	27,812	3698	8.8	0.8570	6.8922
26,746	3483	8.0	9.9495	23.9584	27,312	3594	8.6	4.7492	11.0919	27,848	3699	8.0	1.4529	11.2275
26,520	3487	7.8	10.9902	12.3406	27,373	3598	9.3	6.6168	16.6503	27,967	3702	8.8	2.7439	22.8518
26,629	3488	9.1	11.2222	17.2378	27,439	3603	7.2	9.0348	23.3199	27,790	3703	8.3	2.7579	5.2605
26,498	3490	9.5	11.3428	11.8160	27,440	3605	8.0	9.1602	23.5086	27,903	3704	8.9	2.8227	16.4889
26,750	3491	9.0	11.8065	23.6927	27,288	3609	9.0	9.8100	9.1498	27,981	3705	6.0	2.8825	24.1111
26,570	3495	9.0	12.4944	14.2277	27,247	3612	9.0	11.3115	5.7321	27,814	3712	8.0	5.8335	6.4819
26,760	3497	9.2	13.1822	24.4904	27,248	3617	6.8	12.7908	4.8890	27,823	3714	8.0	7.0330	7.7840
26,358	3498	9.3	13.5144	0.7097	27,278	3618	9.1	13.4685	8.7127	27,759	3715	9.3	7.1354	1.7850
26,725	3500	8.9	13.5294	22.5193	27,341	3619	7.7	13.6052	13.5957	27,910	3716	8.2	7.7447	17.7814
26,528	3503	8.7	13.8909	12.8106	27,415	3620	8.1	13.6804	20.7945	27,922	3719	9.0	8.9240	19.5077
26,418	3506	9.4	15.8951	4.4917	27,416	3622	8.5	15.4329	20.9054	27,804	3720	8.7	10.4270	5.8386
26,762	3508	9.0	16.3887	24.6484	27,333	3624	9.0	16.5732	12.1148	27,825	3721	8.8	10.7524	7.9304
26,551	3509	8.4	17.3309	13.8764	27,255	3626	8.9	17.0736	6.2790	27,805	3725	8.6	13.3411	5.6531
26,376	3513	9.3	19.4591	1.6285	27,217	3628	8.4	17.6507	2.4817	27,973	3727	9.0	13.8422	22.7869
26,489	3515	8.8	20.0351	11.0714	27,334	3629	8.2	18.6749	12.6035	27,960	3731	9.1	15.0599	22.3236
26,679	3517	9.3	20.8645	19.6996	27,249	3632	8.0	19.1183	5.3375	27,794	3732	9.2	15.6923	5.1432
26,506	3519	8.8	21.3327	11.4567	27,389	3634	8.6	20.0036	17.4941	27,951	3740	9.2	19.8307	21.2866
26,402	3520	9.2	21.7688	3.5445	27,219	3635	7.8	20.4390	2.3807	27,941	3741	8.4	20.3385	19.5897
26,613	3521	9.2	21.7502	16.5591	27,380	3637	9.4	21.5655	16.9198	27,992	3744	9.2	21.4581	25.6157
26,472	3524	8.4	22.2449	8.8870	27,305	3638	8.6	21.5959	10.5797	27,978	3745	9.4	23.5092	23.4971
26,537	3528	9.1	23.0194	13.1297	27,240	3639	8.9	21.8351	4.8823	27,810	3747	8.6	24.5588	6.0572
26,460	3529	8.5	23.1533	8.0399	27,437	3644	9.4	24.0986	23.1007	27,901	3748	8.9	24.7513	16.0192
26,616	3530	9.6	23.2374	16.9282	27,454	3646	9.0	24.9445	24.4992	<b>R.A. 9<sup>h</sup> 16<sup>m</sup></b>				
26,695	3531	8.4	23.9622	20.8088	27,298	3647	8.8	25.2332	9.1764	28,325	3745	9.4	0.6627	23.5074
<b>R.A. 8<sup>h</sup> 44<sup>m</sup></b>					27,209	3648	8.8	25.3023	0.5301	28,128	3747	8.6	1.5343	6.0572
27,116	3531	8.4	1.0883	20.8138	<b>R.A. 9<sup>h</sup> 0<sup>m</sup></b>					28,246	3748	8.9	1.8285	16.0162
27,082	3537	9.2	4.6821	18.5462	27,687	3644	9.4	1.2481	23.1039	28,327	3754	8.9	4.1095	23.3142
26,967	3540	9.0	5.7339	12.1716	27,713	3646	9.0	2.1071	24.4931	28,142	3755	8.9	5.3187	7.9640
26,801	3541	9.2	5.7634	0.1635	27,566	3647	8.8	2.2405	9.1687	28,329	3756	9.3	5.4496	23.8869
27,123	3542	9.3	7.7537	19.9760	27,500	3648	8.8	2.2213	0.5228	28,317	3757	8.0	5.9330	22.9462
26,934	3543	9.1	8.3926	9.7806	27,588	3652	9.3	3.8188	11.3346	28,092	3759	8.3	6.5123	3.5251
26,916	3544	7.6	9.3915	9.2258	27,722	3657	9.2	5.8619	25.6131	28,179	3761	8.7	7.1760	10.4435
26,917	3547	9.2	10.3537	9.1779	27,568	3658	9.4	6.2038	9.3555	28,318	3762	9.2	7.3947	22.4310
26,837	3548	9.4	12.2504	4.6831	27,625	3663	8.7	8.7550	16.1000	28,121	3763	8.8	7.9588	5.7426
26,838	3550	9.4	12.2734	4.6821	27,626	3665	8.7	8.8125	16.1893	28,122	3764	8.0	8.0462	5.5544
27,139	3551	8.2	12.7632	21.0784	27,611	3666	9.3	9.3704	13.9299	28,180	3765	8.6	8.6873	10.1810
26,920	3552	9.2	14.6422	9.3723	27,613	3668	7.5	10.4643	14.2038	28,211	3768	9.2	9.8192	12.2182
27,129	3554	8.7	14.7242	20.4583	27,621	3669	9.0	10.6591	14.9933	28,298	3769	9.2	9.8915	20.8876
26,954	3556	9.1	15.1724	10.8571	27,578	3672	9.1	11.5443	10.4449	28,224	3770	9.4	10.0314	13.5473
26,955	3557	9.2	15.1892	10.8351	27,632	3673	9.0	11.8013	16.5439	28,311	3772	8.9	11.0199	22.1640
27,165	3560	9.1	16.2573	23.1512	27,579	3675	7.5	13.1503	11.0604	28,212	3775	8.3	12.3822	13.0034
27,152	3561	9.0	16.2791	22.2436	27,605	3676	8.2	14.9615	12.2923	28,320	3778	8.8	13.2442	22.7049
26,956	3562	8.4	16.9658	11.4054	27,641	3680	8.6	16.1769	17.7276	28,261	3782	8.8	15.3829	16.8407
27,014	3563	9.0	17.2730	14.1767	27,634	3682	8.6	17.6833	17.2533	28,262	3783	8.5	15.4897	16.9565
27,153	3564	9.0	17.6565	22.5453	27,572	3683	8.8	17.7126	9.8672	28,280	3785	8.0	18.2266	18.6024
27,109	3565	8.6	17.9156	19.0688										
27,175	3571	9.2	19.2641	25.0966										
27,176	3573	9.2	19.9852	24.7517										



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 9<sup>h</sup> 16<sup>m</sup> (continued)</b>					<b>R.A. 9<sup>h</sup> 32<sup>m</sup> (continued)</b>					<b>R.A. 9<sup>h</sup> 48<sup>m</sup> (continued)</b>				
28,134	3786	9-1	18-4010	6-7257	28,751	3875	8-0	6-9196	0-1775	29,342	3977	9-0	8-5676	4-3014
28,288	3788	9-3	18-4467	20-1111	28,758	3879	9-2	9-4985	1-3128	29,322	3978	8-8	9-1139	2-0829
28,081	3789	9-2	19-2529	2-5057	28,836	3884	8-8	11-4692	10-6292	29,469	3980	9-0	9-2621	14-3267
28,227	3791	8-4	19-4930	13-8370	28,849	3886	8-6	12-1763	12-2502	29,427	3983	8-9	10-7560	11-5481
28,290	3792	9-3	19-7888	19-4108	28,779	3888	9-2	14-9649	4-0543	29,311	3984	7-6	10-7482	1-7665
28,098	3793	7-8	21-0785	3-8711	28,983	3889	8-6	14-9972	24-8698	29,484	3985	9-2	11-5752	16-0925
28,265	3795	9-0	21-9733	16-8966	28,819	3890	8-6	15-5566	8-4664	29,440	3988	8-4	12-4577	12-5208
28,229	3797	8-9	23-0339	13-7294	28,783	3894	9-0	16-9001	3-4327	29,554	3990	9-2	12-8875	20-4973
28,058	3799	8-6	23-3066	0-1688	28,784	3896	8-8	17-2051	4-2010	29,603	3991	9-0	13-0609	23-3921
28,341	3800	9-1	23-4770	25-3039	28,851	3897	8-6	17-2203	11-4303	29,584	3993	9-0	13-4133	22-6026
28,308	3802	8-0	25-0653	20-9605	28,938	3901	8-4	19-5053	21-7939	29,524	3996	7-6	14-8493	18-4634
28,189	3803	7-9	25-3822	10-4904	28,886	3902	7-8	19-5826	15-0851	29,459	3997	8-9	15-8046	13-2577
<b>R.A. 9<sup>h</sup> 24<sup>m</sup></b>					28,962	3903	8-5	20-5785	23-3310	29,588	3999	8-4	17-0214	22-5316
28,693	3800	9-1	0-6489	25-3142	28,926	3906	8-4	21-7028	20-4016	29,432	4002	9-0	18-1223	11-6223
28,651	3802	8-0	2-1929	20-9536	28,833	3907	8-8	22-5161	9-5516	29,476	4003	9-2	18-4096	14-7367
28,502	3803	7-9	2-4029	10-4818	28,838	3908	8-9	22-6788	10-5992	29,557	4005	9-0	19-2467	20-9076
28,402	3804	8-4	2-8888	0-5212	29,001	3912	9-2	24-1772	25-7608	29,351	4006	8-8	19-2937	4-4108
28,490	3805	9-1	3-2299	9-0892	28,990	3913	8-6	24-2271	25-3985	29,447	4008	7-8	21-1253	12-9611
28,652	3810	9-0	4-4772	21-1130	<b>R.A. 9<sup>h</sup> 40<sup>m</sup></b>					29,560	4009	9-0	21-5856	20-6523
28,588	3812	9-5	4-5315	16-0436	29,253	3912	9-2	1-3539	25-7628	29,305	4011	9-1	22-6148	0-9797
28,625	3814	7-4	5-2139	19-1998	29,254	3913	8-6	1-4000	25-4005	29,450	4013	9-0	24-3847	12-8648
28,411	3816	8-7	6-8865	1-1071	29,192	3915	9-1	2-7812	18-1618	29,477	4017	8-7	25-3546	14-6513
28,412	3818	8-1	7-1409	1-1454	29,149	3916	8-4	2-9108	12-1767	<b>R.A. 9<sup>h</sup> 56<sup>m</sup></b>				
28,425	3820	8-4	7-9702	1-8030	29,255	3917	8-4	3-9008	25-3778	29,778	4013	9-0	1-4297	12-8658
28,664	3822	8-8	8-2721	22-1281	29,193	3918	8-8	4-0528	18-1747	29,805	4017	8-7	2-4172	14-6426
28,426	3823	9-0	8-3119	1-8241	29,165	3919	9-1	4-3200	14-9552	29,688	4019	9-0	2-7484	4-3220
28,521	3824	9-4	8-5194	10-9519	29,183	3920	8-4	4-7585	17-1466	29,780	4021	9-4	3-5043	12-5566
28,522	3825	9-1	8-5214	10-9779	29,203	3922	9-1	5-3104	18-6958	29,660	4023	8-1	3-9899	1-5578
28,443	3826	9-1	8-5833	3-7192	29,155	3929	9-0	7-3193	13-3354	29,810	4033	8-9	11-2634	14-8910
28,644	3830	8-9	10-5525	20-1667	29,152	3932	8-4	9-8629	12-6996	29,665	4034	8-6	11-5388	1-2878
28,427	3831	9-2	11-6719	1-9009	29,058	3934	9-0	10-8376	1-2789	29,840	4036	8-4	11-8794	17-1993
28,457	3832	9-0	11-9786	5-4227	29,112	3935	8-6	13-1385	7-6683	29,770	4040	9-0	14-9564	11-6218
28,428	3833	8-4	12-5974	2-0438	29,088	3936	9-1	13-1948	5-6381	29,955	4041	8-5	15-2213	25-7051
28,687	3835	8-5	13-3035	24-3561	29,179	3938	8-0	13-3830	15-9626	29,759	4043	8-2	15-4443	11-2204
28,631	3838	9-2	13-7427	19-8599	29,064	3940	8-9	13-5011	2-1262	29,870	4044	8-0	16-5592	19-1343
28,604	3839	9-0	14-2475	17-3610	29,180	3941	9-3	13-6834	15-5991	29,670	4050	9-0	18-2283	2-0344
28,527	3840	8-8	14-5517	10-8492	29,114	3943	9-2	14-0480	7-1585	29,855	4051	9-2	19-1952	17-9781
28,487	3841	9-4	14-5812	8-3529	29,205	3945	9-2	15-7147	18-7544	29,736	4052	9-2	19-7788	8-9378
28,606	3842	9-0	14-6972	17-6814	29,054	3948	9-0	17-4063	0-9512	29,947	4053	8-8	20-0402	25-1444
28,552	3843	7-9	15-1557	13-8184	29,059	3950	8-2	18-9794	2-0172	29,747	4054	8-4	20-3397	9-3893
28,583	3846	8-7	17-2642	15-0214	29,094	3951	9-1	19-6146	5-2925	29,762	4057	9-3	22-1290	10-5279
28,553	3850	9-2	18-7014	13-8406	29,130	3952	7-8	20-1632	9-9290	29,948	4058	9-2	22-0840	25-1493
28,569	3852	9-4	19-5650	14-3934	29,095	3953	9-2	20-9101	5-8828	29,886	4060	7-9	22-3124	20-4221
28,690	3854	8-2	20-9105	24-7423	29,240	3957	8-5	22-6675	23-9507	29,887	4061	7-8	22-3815	20-4268
28,489	3855	9-0	21-5397	8-6067	29,201	3960	9-1	22-9166	17-5705	29,874	4063	8-0	23-9403	18-4729
28,672	3856	9-5	21-9112	22-1907	29,106	3963	9-2	24-2016	6-3879	29,916	4064	9-2	24-5220	21-6986
28,462	3858	9-0	22-3177	5-4108	29,055	3964	8-8	24-5816	0-7571	<b>R.A. 10<sup>h</sup> 4<sup>m</sup></b>				
28,471	3860	9-0	22-9329	6-2681	29,096	3965	9-0	24-7016	5-9919	30,110	4063	8-0	1-0425	18-4780
28,542	3861	9-0	22-9566	12-4044	<b>R.A. 9<sup>h</sup> 48<sup>m</sup></b>					30,149	4064	9-2	1-6572	21-6976
28,556	3862	9-0	23-8947	12-9078	29,365	3963	9-2	1-1806	6-3907	30,019	4065	8-4	2-6159	6-6298
28,596	3864	8-8	24-5285	16-5316	29,301	3964	8-8	1-5030	0-7571	30,002	4067	9-2	6-3481	1-1084
<b>R.A. 9<sup>h</sup> 32<sup>m</sup></b>					29,355	3965	9-0	1-6765	5-9899	30,031	4069	9-2	6-5718	7-4081
28,858	3862	9-0	0-9401	12-9137	29,467	3966	9-0	2-5601	14-4284	30,010	4070	8-9	7-0763	4-7291
28,894	3864	8-8	1-6110	16-5306	29,617	3967	8-5	2-7478	24-7240	30,072	4071	7-8	7-5831	12-4863
28,944	3866	9-6	3-1782	22-9453	29,618	3968	8-2	2-7536	25-3884	30,073	4072	8-6	8-1485	12-9687
28,843	3868	9-0	3-9359	12-1397	29,578	3969	8-6	3-7580	23-2597	30,039	4073	6-6	8-2886	8-8288
28,790	3869	9-2	4-4157	5-0626	29,332	3970	8-6	3-8819	3-1480	30,066	4074	9-1	8-3231	11-8156
28,922	3872	9-1	6-5125	19-5519	29,374	3971	8-8	4-2986	7-8041	30,003	4076	9-0	9-0214	0-2842
					29,375	3973	9-3	6-1483	7-4989	30,074	4077	9-2	9-5867	12-8536



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
R.A. 10 <sup>h</sup> 4 <sup>m</sup> (continued)					R.A. 10 <sup>h</sup> 20 <sup>m</sup> (continued)					R.A. 10 <sup>h</sup> 44 <sup>m</sup>				
30,163	4080	8.9	11.7868	24.1658	30,491	4183	9.3	19.4907	5.6638	31,102	4282	8.8	2.6129	11.7991
30,170	4083	9.0	12.6457	25.1685	30,605	4184	8.6	19.6014	21.9802	31,065	4284	8.7	4.2971	7.9124
30,145	4085	8.8	14.1414	21.3503	30,537	4185	8.4	20.1330	11.8981	31,028	4286	8.4	4.6226	3.5288
30,146	4086	7.8	14.3695	20.7754	30,606	4186	8.0	20.4133	22.3375	31,190	4291	9.1	6.2480	19.2691
30,154	4088	9.0	15.6590	22.2889	30,492	4187	9.1	20.6399	5.7593	31,084	4294	6.0	7.1602	10.2425
30,011	4091	9.4	17.9945	4.5253	30,533	4189	9.1	21.3048	10.4509	31,245	4295	9.4	7.3059	24.2406
30,018	4095	8.0	19.1791	6.2683	30,508	4191	9.4	22.6228	7.9058	31,108	4297	9.0	8.0373	11.7702
30,129	4096	9.0	19.9188	19.0048						31,211	4299	9.0	8.4107	20.5095
30,098	4097	8.2	20.1613	14.7241	R.A. 10 <sup>h</sup> 28 <sup>m</sup>					31,096	4307	9.4	10.5046	10.8838
30,156	4098	8.8	20.3250	22.5475	30,837	4196	9.1	2.7647	25.8426	31,087	4311	9.3	11.8135	9.9020
30,027	4101	9.9	22.2763	6.3760	30,703	4197	9.2	2.8218	8.4603	31,249	4313	9.4	13.8352	24.8534
30,043	4106	9.0	23.2839	8.7144	30,728	4198	9.4	3.2251	11.5125	31,089	4315	9.2	16.6106	10.5816
30,028	4107	9.2	23.5263	7.2886	30,797	4199	8.8	3.6862	21.8118	31,198	4318	9.2	17.4596	19.3411
R.A. 10 <sup>h</sup> 12 <sup>m</sup>					30,663	4201	8.5	5.3463	2.9531	31,018	4319	8.6	18.4799	2.0840
30,398	4111	9.2	3.1662	25.3205	30,747	4202	9.0	5.7051	14.9458	31,007	4321	9.4	19.0763	0.8229
30,352	4118	9.0	5.6607	17.8795	30,764	4203	9.0	5.7344	17.2126	31,233	4322	8.0	19.2994	22.6385
30,368	4119	9.4	5.7679	19.4573	30,741	4204	8.9	7.9070	13.8210	31,114	4323	8.8	19.4519	12.4901
30,376	4120	9.0	7.2792	20.4608	30,817	4205	9.2	8.5022	23.8333	31,185	4324	9.3	20.7057	18.7374
30,391	4123	9.2	9.9226	24.1284	30,698	4207	8.7	9.2463	7.7563	31,151	4327	9.2	20.9201	15.0011
30,288	4125	8.4	11.3406	12.0586	30,803	4211	9.0	10.5737	22.5783	31,061	4330	8.1	23.7623	6.9701
30,236	4127	8.8	11.8538	4.3313	30,766	4212	9.3	10.6852	17.1463	31,022	4331	7.7	23.8120	1.7076
30,383	4129	8.7	12.8800	22.7573	30,690	4213	8.1	12.4840	6.2969	31,162	4332	9.2	23.8394	16.0343
30,335	4131	9.1	14.4566	15.7081	30,798	4216	9.1	14.1424	22.2321	31,091	4334	8.2	24.6243	10.0011
30,317	4132	8.8	15.3109	13.4462	30,767	4218	8.5	15.9291	16.7381	31,056	4336	8.6	24.9433	5.8371
30,393	4133	9.0	15.3423	24.6130	30,768	4219	8.7	16.1653	16.4776	R.A. 10 <sup>h</sup> 52 <sup>m</sup>				
30,318	4134	9.3	18.2815	13.5085	30,807	4223	9.0	18.6190	22.6930	31,342	4330	8.1	0.7472	6.9777
30,372	4135	8.8	19.1771	20.2474	30,707	4226	8.8	20.0804	9.1643	31,303	4331	7.7	0.7431	1.7149
30,293	4137	9.5	20.1761	12.0347	30,843	4227	7.4	20.9797	25.6391	31,413	4332	9.2	0.9168	16.0402
30,305	4138	8.9	20.2602	12.6801	30,731	4228	8.2	21.2659	11.2819	31,372	4334	8.2	1.6400	10.0001
30,230	4140	8.7	23.4000	3.5971	30,793	4232	9.0	23.5555	20.4348	31,326	4336	8.6	1.9165	5.8334
30,276	4141	9.4	23.4239	10.3639	30,813	4233	9.0	24.0628	23.4170	31,322	4339	8.8	3.6224	4.3743
30,231	4143	9.3	23.9124	3.5967	30,660	4235	9.3	25.1227	1.8216	31,323	4340	9.3	5.4988	3.8968
30,279	4145	9.3	24.2130	10.1721	R.A. 10 <sup>h</sup> 36 <sup>m</sup>					31,394	4342	9.2	7.4122	12.2278
30,366	4147	6.0	25.3584	18.8030	30,956	4232	9.0	0.6778	20.4438	31,324	4343	8.6	7.9355	4.1660
R.A. 10 <sup>h</sup> 20 <sup>m</sup>					30,974	4233	9.0	1.2155	23.4211	31,431	4350	9.2	12.2812	18.5975
30,470	4143	9.3	0.8628	3.6024	30,855	4235	9.3	2.0549	1.8159	31,387	4351	8.0	12.5178	11.9708
30,522	4145	9.3	1.2305	10.1751	30,939	4237	8.9	3.7956	16.6343	31,473	4353	8.8	12.9172	24.5041
30,582	4147	6.0	2.4639	18.7930	30,932	4238	8.8	4.5494	15.6006	31,449	4354	9.0	13.1524	21.2440
30,560	4148	8.9	2.5404	14.1086	30,946	4239	8.2	6.3779	17.3990	31,329	4356	9.2	14.0581	5.9471
30,500	4149	9.0	2.9406	7.6072	30,903	4240	9.4	6.3822	11.0773	31,455	4357	8.8	14.3611	22.0782
30,524	4150	9.4	3.0372	10.1411	30,885	4241	5.0	6.4046	5.2975	31,456	4358	8.6	14.8028	22.2458
30,464	4151	9.3	3.5478	2.8313	30,898	4244	8.8	7.3208	9.5814	31,340	4359	9.4	15.9260	6.2645
30,588	4154	8.0	4.9084	19.3766	30,962	4245	9.0	7.7808	21.5771	31,407	4360	8.2	19.7090	14.0576
30,547	4155	9.4	5.9878	12.9168	30,919	4246	9.2	7.8921	13.7653	31,347	4361	9.3	19.7339	7.9237
30,556	4156	9.2	6.2336	14.0016	30,921	4247	8.5	8.0320	13.6755	31,459	4363	4.5	21.2986	22.2118
30,485	4158	9.3	7.7437	5.0647	30,976	4248	8.4	8.3438	24.0687	31,379	4365	8.7	21.5492	10.3886
30,528	4161	9.0	9.5758	11.0650	30,881	4249	9.0	8.9735	3.6496	31,412	4366	9.4	22.9428	15.0975
30,550	4163	9.1	10.3504	12.4303	30,912	4251	9.0	10.3821	12.6072	31,424	4367	9.4	22.9454	16.4430
30,535	4165	8.5	11.2144	12.1217	30,923	4254	9.2	11.7772	13.4936	31,466	4368	9.4	23.1791	22.4920
30,462	4168	9.4	13.3700	1.8165	30,916	4260	9.1	14.9126	13.0668	31,467	4369	Var.	23.3949	22.4841
30,476	4171	9.0	15.1743	3.9250	30,904	4264	9.0	16.7921	10.5680	31,468	4370	9.3	23.8811	22.9929
30,612	4173	8.8	15.7700	24.1300	30,900	4265	9.0	16.8959	9.7490	R.A. 11 <sup>h</sup> 0 <sup>m</sup>				
30,467	4174	8.5	16.2531	2.5792	30,984	4266	8.8	17.9493	25.1823	31,847	4370	9.3	1.0295	22.9990
30,483	4175	4.0	16.6087	4.9114	30,934	4267	8.9	18.0936	15.4558	31,581	4372	8.8	2.9866	5.5304
30,572	4177	8.6	17.2741	15.8728	30,925	4268	8.6	18.1046	13.5523	31,582	4373	8.4	3.0506	5.9041
30,567	4178	8.8	17.7731	15.2201	30,876	4270	8.6	19.9070	3.0328	31,658	4374	8.6	3.5202	10.7828
30,573	4180	8.8	17.8540	16.2464	30,895	4271	9.4	19.9829	8.4682	31,503	4376	9.1	4.8397	0.2174
30,558	4182	8.7	18.9710	14.2251	30,877	4274	8.7	20.5440	2.5907	31,550	4379	8.6	5.5134	3.6667
					30,896	4276	9.2	20.5384	8.9951					



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
R.A. 11 <sup>h</sup> 0 <sup>m</sup> (continued)					R.A. 11 <sup>h</sup> 24 <sup>m</sup>					R.A. 11 <sup>h</sup> 40 <sup>m</sup> (continued)				
31,688	4380	9.0	5.9358	12.5001	32,518	4487	4.0	1.2013	14.6476	32,909	4583	8.7	7.3720	8.6093
31,551	4382	9.5	8.2289	3.9524	32,597	4488	8.0	2.3099	25.7152	32,873	4585	8.6	8.1904	2.5301
31,679	4383	9.2	8.3245	11.8273	32,498	4490	9.4	3.3539	11.4136	32,969	4587	8.8	8.7929	19.5102
31,572	4388	8.9	12.4798	5.0231	32,558	4493	8.4	5.2967	19.5553	32,931	4588	9.2	9.2484	12.7165
31,556	4390	9.6	14.5387	3.2228	32,583	4494	9.4	5.6721	23.4008	32,879	4589	9.0	9.3727	3.4692
31,512	4394	8.2	17.2343	0.8839	32,577	4496	8.9	7.8842	21.6185	33,007	4590	9.0	9.7461	25.0960
31,854	4400	9.3	19.5120	23.0675	32,595	4497	8.4	8.4125	24.6356	32,904	4592	8.5	10.3662	7.9368
31,750	4403	8.6	20.0556	16.1305	32,561	4498	8.4	9.5073	20.2344	32,932	4593	9.4	10.4006	12.4552
31,809	4407	9.0	23.0379	19.8953	32,455	4502	9.0	10.7578	1.7761	32,858	4594	8.8	11.2897	1.6810
31,760	4410	9.4	23.8447	16.7381	32,585	4504	8.8	11.1725	22.9387	32,987	4595	5.0	12.1230	22.5374
					32,456	4505	8.1	12.5521	1.5227	32,979	4598	9.2	15.1435	20.5136
					32,494	4506	8.8	13.5753	10.5968	32,959	4600	9.6	17.7824	16.6918
					32,495	4507	8.5	13.6241	10.6795	32,934	4601	9.4	18.1673	12.8739
					32,464	4509	9.2	14.4765	3.4739	32,996	4603	7.4	19.5668	22.8934
					32,579	4510	9.4	14.7227	21.8255	32,936	4606	9.0	21.2183	12.6600
					32,587	4511	8.9	14.9809	23.3448	32,856	4607	7.5	21.8645	0.9181
					32,527	4512	8.2	15.6903	15.6109	32,865	4610	8.2	23.9402	1.5344
					32,531	4513	8.4	15.7984	17.0084	32,906	4611	9.2	24.0280	8.1506
					32,570	4514	9.4	16.5479	20.5778	32,887	4612	9.1	24.4856	4.7783
					32,528	4515	9.0	16.8935	15.5507	33,006	4613	9.0	24.4202	24.4691
					32,530	4517	9.4	19.7444	15.7517	32,924	4614	9.7	24.7554	10.9359
					32,507	4518	9.4	20.7726	13.0474	R.A. 11 <sup>h</sup> 48 <sup>m</sup>				
					32,571	4519	9.2	21.2124	21.2666	33,058	4610	8.2	0.8695	1.5401
					32,516	4521	9.5	22.0165	14.2124	33,123	4611	9.2	1.0249	8.1554
					32,500	4523	9.4	23.5072	12.0992	33,093	4612	9.1	1.4481	4.7783
					32,458	4524	8.6	23.6060	1.9619	33,332	4613	9.0	1.5836	24.4691
					R.A. 11 <sup>h</sup> 32 <sup>m</sup>					33,163	4614	9.7	1.7807	10.9330
					32,658	4524	8.6	0.5397	1.9712	33,320	4615	9.0	2.8540	22.9672
					32,696	4532	9.4	5.3244	7.6876	33,193	4616	8.4	3.1124	13.7299
					32,698	4534	9.4	6.4403	8.0145	33,133	4617	9.4	3.1079	8.3611
					32,806	4536	9.5	7.3346	23.9136	33,112	4619	9.2	3.7366	7.0738
					32,822	4537	9.2	7.7976	25.5568	33,270	4620	8.8	4.0290	20.3344
					32,770	4542	8.8	9.2921	17.4925	33,206	4622	8.3	5.5947	15.2321
					32,795	4545	9.2	11.2613	21.4522	33,135	4625	9.1	6.6191	8.8756
					32,682	4546	7.8	11.4209	4.5317	33,184	4629	8.5	8.8470	13.1608
					32,690	4548	9.1	14.5443	5.5262	33,276	4630	8.3	8.9962	20.4020
					32,689	4549	9.2	14.5453	5.4756	33,212	4632	9.3	11.1798	14.8610
					32,791	4551	8.1	15.9892	20.6677	33,309	4633	9.0	11.3082	22.3666
					32,694	4552	8.9	16.0398	6.5143	33,150	4634	8.7	11.4761	10.1692
					32,679	4555	9.0	17.3546	3.5583	33,257	4636	8.8	12.5775	19.1115
					32,729	4558	9.4	17.8692	11.8563	33,187	4638	9.0	12.9981	13.2563
					32,663	4561	8.6	18.8802	1.7122	33,066	4641	7.8	13.8420	1.4341
					32,737	4564	9.2	20.3058	13.2103	33,166	4644	8.7	14.9801	11.2516
					32,664	4565	7.8	21.0272	1.8055	33,250	4646	9.1	15.7617	17.7564
					32,794	4568	8.9	22.7921	20.5009	33,121	4648	9.4	17.4227	7.0427
					32,805	4569	9.2	23.2851	22.5363	33,200	4649	9.2	18.7272	14.0413
					32,751	4572	8.0	24.7528	14.8281	33,262	4650	9.2	19.1487	19.6417
					32,675	4573	8.1	24.8756	2.5661	33,127	4653	6.0	21.3900	8.1444
					R.A. 11 <sup>h</sup> 40 <sup>m</sup>					33,159	4655	9.1	21.8950	9.6273
					32,942	4572	8.0	1.8178	14.8250	33,266	4658	9.8	22.5403	19.6314
					32,869	4573	8.1	1.8155	2.5624	33,330	4660	8.8	24.4994	22.9464
					32,950	4574	9.6	2.7827	16.1948	R.A. 11 <sup>h</sup> 56 <sup>m</sup>				
					33,001	4575	9.4	3.1254	23.6138	33,550	4660	8.8	1.6473	22.9454
					32,895	4577	8.5	4.3413	6.5692	33,534	4665	8.9	3.6845	19.5543
					33,002	4580	9.0	6.3906	23.8081	33,442	4667	9.1	5.5415	5.7932
					32,967	4582	9.4	7.0886	19.3935	33,503	4669	8.8	6.2909	15.4437
					R.A. 11 <sup>h</sup> 40 <sup>m</sup>					33,520	4673	9.0	10.1236	18.3293
					32,942	4572	8.0	1.8178	14.8250	R.A. 11 <sup>h</sup> 56 <sup>m</sup>				
					32,869	4573	8.1	1.8155	2.5624	33,550	4660	8.8	1.6473	22.9454
					32,950	4574	9.6	2.7827	16.1948	33,534	4665	8.9	3.6845	19.5543
					33,001	4575	9.4	3.1254	23.6138	33,442	4667	9.1	5.5415	5.7932
					32,895	4577	8.5	4.3413	6.5692	33,503	4669	8.8	6.2909	15.4437
					33,002	4580	9.0	6.3906	23.8081	33,520	4673	9.0	10.1236	18.3293
					32,967	4582	9.4	7.0886	19.3935	R.A. 11 <sup>h</sup> 56 <sup>m</sup>				



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
R.A. 11 <sup>h</sup> 56 <sup>m</sup> (continued)					R.A. 12 <sup>h</sup> 20 <sup>m</sup> (continued)					R.A. 12 <sup>h</sup> 36 <sup>m</sup> (continued)				
33,408	4674	8.2	10.2239	1.3389	34,174	4759	9.4	5.9535	19.9342	34,694	4846	7.0	5.9153	21.4192
33,417	4676	8.4	10.5404	2.4049	34,063	4765	8.5	8.4474	2.5205	34,606	4847	9.3	6.2753	14.0480
33,571	4680	9.0	12.7755	24.5197	34,155	4766	9.4	8.5001	16.6132	34,676	4848	9.0	6.4975	20.3000
33,482	4682	8.5	13.9326	12.5186	34,140	4767	9.3	8.8788	14.3398	34,762	4849	9.5	6.6478	25.7266
33,499	4685	8.9	18.1273	14.4735	34,185	4768	8.8	11.1954	21.2622	34,667	4850	8.9	7.4347	18.9944
33,428	4687	9.6	19.2895	3.1309	34,209	4770	8.7	12.0043	25.3722	34,529	4852	9.2	8.1351	7.8408
33,466	4688	8.9	19.3313	9.7955	34,194	4771	8.7	12.0639	21.3886	34,697	4853	8.6	9.2020	20.6163
33,411	4689	9.5	20.3970	2.0122	34,141	4772	9.4	13.1605	15.2040	34,625	4854	8.8	9.4766	14.6198
33,420	4691	9.0	23.2630	2.8685	34,176	4774	8.9	14.2706	20.3169	34,751	4855	8.7	9.7570	24.8070
33,518	4692	8.8	23.3838	16.5459	34,163	4775	9.0	14.3847	17.6432	34,626	4856	9.0	9.9626	14.9941
R.A. 12 <sup>h</sup> 4 <sup>m</sup>					34,111	4776	8.8	15.1092	9.3070	34,531	4858	9.0	11.0067	7.2011
33,601	4693	8.8	3.1940	0.5824	34,097	4777	9.3	15.2080	7.7337	34,670	4859	8.8	11.2529	18.6121
33,748	4695	8.8	6.2635	18.0646	34,165	4778	8.4	15.2738	17.5076	34,614	4867	8.8	17.4001	13.4286
33,733	4696	9.1	7.5718	17.2934	34,099	4781	9.3	18.0207	7.8353	34,712	4870	8.7	18.8575	21.6163
33,756	4697	7.7	8.2136	20.6196	34,202	4782	8.1	18.8430	23.3123	34,456	4871	9.1	19.0187	0.5870
33,639	4699	9.1	9.5687	5.4509	34,213	4784	9.4	19.7726	25.6895	34,488	4873	9.4	19.9183	3.4239
33,689	4700	8.8	9.7135	12.2758	34,188	4785	8.2	20.3599	21.1902	34,714	4874	7.9	20.5187	21.8587
33,806	4702	8.7	10.7355	25.2896	34,061	4786	6.5	20.5836	1.9568	34,738	4876	8.1	22.2429	24.4485
33,660	4703	9.4	11.3129	8.9796	34,126	4787	8.2	20.5753	12.1193	34,458	4877	9.2	22.4961	0.2734
33,788	4704	8.0	11.8169	23.5471	34,214	4788	8.0	20.8406	25.6921	34,646	4878	8.0	22.9283	15.7803
33,651	4705	8.6	12.0244	8.1681	34,127	4790	9.0	21.3777	11.3357	34,741	4879	9.4	23.5865	23.6746
33,751	4706	8.9	13.2719	18.6657	34,113	4791	8.7	22.4702	9.9804	R.A. 12 <sup>h</sup> 44 <sup>m</sup>				
33,652	4707	9.0	15.1091	7.3636	34,196	4792	9.0	22.4326	21.8858	34,987	4879	9.4	0.7418	23.6838
33,607	4708	8.4	15.6080	0.4074	34,138	4795	9.4	23.4895	13.4480	34,830	4884	9.0	4.4025	3.2371
33,705	4709	8.0	15.7559	12.7597	34,114	4796	9.1	23.6513	9.3614	34,967	4885	8.3	4.8116	21.0869
33,663	4711	8.8	16.8640	8.8442	R.A. 12 <sup>h</sup> 28 <sup>m</sup>					34,803	4886	9.0	4.9581	0.9172
33,613	4712	9.2	16.9413	1.8363	34,317	4796	9.1	0.6605	9.3700	34,804	4888	9.0	5.3934	0.8272
33,641	4713	8.9	17.4055	5.7839	34,309	4798	9.2	3.1698	8.2624	34,832	4890	9.6	8.7939	3.6666
33,622	4715	8.3	19.4817	3.8032	34,250	4799	8.9	3.4013	0.5862	34,964	4891	9.2	9.5916	19.5062
33,665	4717	9.2	20.9741	8.5341	34,251	4800	2.3	3.4467	0.5218	34,891	4892	8.9	9.6254	10.8902
33,693	4718	9.1	21.5490	11.5720	34,373	4801	8.9	4.3787	17.6815	34,869	4893	8.8	9.6872	8.3808
33,791	4719	8.9	21.6362	23.0875	34,289	4804	8.7	5.8498	5.8593	34,870	4899	9.0	13.5111	8.7460
33,666	4720	8.9	22.2910	8.8637	34,252	4805	8.8	6.6958	0.1318	34,871	4900	8.5	13.5520	8.2004
33,654	4722	8.8	23.9430	7.9747	34,356	4806	8.9	7.2412	14.9644	35,003	4904	9.2	16.4407	25.5112
33,616	4723	9.2	24.2869	1.7084	34,337	4809	8.6	9.3210	11.7996	34,946	4907	8.9	18.0705	16.7854
R.A. 12 <sup>h</sup> 12 <sup>m</sup>					34,403	4814	8.8	11.2560	22.5766	34,896	4908	8.8	18.1201	10.4816
33,892	4722	8.8	0.9381	7.9805	34,312	4815	8.5	11.5338	9.0304	34,851	4909	8.2	19.0038	5.4716
33,855	4723	9.2	1.2180	1.7112	34,411	4816	8.9	12.0870	24.2061	34,921	4910	9.4	19.2395	13.8912
33,956	4725	9.0	4.1585	15.4434	34,266	4817	8.2	12.1160	2.2871	34,941	4915	9.0	21.2418	16.1372
34,021	4729	9.3	8.0641	25.8516	34,365	4818	8.5	14.1747	15.8926	34,972	4916	9.2	21.9345	20.8775
34,014	4730	8.5	8.7934	24.8056	34,359	4819	8.8	14.6238	15.0386	34,923	4917	9.2	22.0158	13.9257
33,937	4732	2.0	9.1606	12.8427	34,299	4820	9.3	14.8963	6.2412	34,912	4919	9.4	23.1792	13.2174
33,861	4734	7.0	12.7027	2.6572	34,307	4821	7.8	15.0402	7.3185	34,995	4921	8.5	24.2249	24.5041
33,989	4736	9.0	13.9422	21.4152	34,392	4823	8.1	15.6647	20.7066	34,876	4922	8.3	24.3147	8.8965
33,862	4737	9.0	14.3691	2.4730	34,276	4825	9.1	17.8037	3.9724	34,819	4923	8.5	24.3518	1.6108
33,916	4738	9.0	14.6796	10.6137	34,388	4826	9.4	17.8318	20.3381	R.A. 12 <sup>h</sup> 52 <sup>m</sup>				
33,898	4739	9.0	14.9751	7.6795	34,253	4828	9.0	20.0053	0.9301	35,171	4921	8.5	1.3887	24.5061
33,880	4740	8.4	15.1433	5.7541	34,308	4829	8.0	20.0221	8.1889	35,089	4922	8.3	1.3192	8.8985
33,875	4741	9.2	15.3530	4.3132	34,285	4830	6.5	20.2132	4.3162	35,055	4923	8.5	1.2819	1.6128
33,876	4747	8.8	17.5257	4.2418	34,324	4831	9.0	21.5968	9.7226	35,073	4924	8.2	2.4900	4.5089
33,878	4755	9.1	24.2655	4.9242	34,334	4833	9.3	21.9984	11.2033	35,090	4925	9.0	2.8969	8.8630
R.A. 12 <sup>h</sup> 20 <sup>m</sup>					34,416	4835	9.6	22.1746	24.7274	35,141	4926	9.0	3.5597	18.9256
34,077	4755	9.1	1.2295	4.9271	34,278	4838	8.6	23.6704	3.4825	35,142	4927	8.6	3.6367	18.9582
34,102	4756	9.2	3.4770	8.1454	R.A. 12 <sup>h</sup> 36 <sup>m</sup>					35,160	4928	8.9	5.8442	22.7445
34,198	4757	8.7	3.5747	23.1688	34,480	4838	8.6	0.6196	3.4908	35,173	4929	9.4	7.1064	25.0557
					34,551	4840	9.2	2.5787	9.5842	35,115	4930	9.3	7.7499	12.6442
					34,622	4844	9.4	5.1574	14.7531	35,078	4932	8.1	9.6778	5.2045
					34,748	4845	8.7	5.6093	24.8479	35,124	4933	9.2	9.9038	14.6334



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 12<sup>h</sup> 52<sup>m</sup> (continued)</b>					<b>R.A. 13<sup>h</sup> 8<sup>m</sup> (continued)</b>					<b>R.A. 13<sup>h</sup> 32<sup>m</sup> (continued)</b>				
35,155	4935	9.0	9.9208	21.4302	35,354	5024	9.4	17.2400	0.9182	36,035	5119	9.2	5.2315	3.8144
35,094	4937	9.4	10.9157	8.3303	35,415	5027	9.1	18.7866	12.3057	36,014	5121	9.3	7.2257	1.2241
35,068	4938	8.4	11.1790	3.2140	35,366	5030	9.7	21.4862	2.6929	36,048	5122	9.3	7.5065	4.9894
35,083	4939	9.2	11.4279	6.9050	35,373	5031	9.0	22.5253	3.8576	36,064	5123	8.4	7.6124	5.9453
35,087	4940	9.4	11.6941	7.0672	35,448	5032	9.2	23.7902	17.5249	36,093	5130	9.3	12.0174	7.5475
35,178	4942	8.9	11.8569	25.5763						36,004	5131	8.1	12.0546	0.2340
35,109	4943	8.6	13.9298	11.2329	<b>R.A. 13<sup>h</sup> 16<sup>m</sup></b>					36,131	5132	9.4	12.4055	10.6888
35,064	4944	9.0	15.2523	2.2842	35,659	5032	9.2	0.8828	17.5318	36,042	5136	9.2	14.8713	3.4461
35,148	4946	9.4	15.4497	20.3208	35,579	5036	9.2	3.4674	4.7705	36,205	5138	9.2	15.9117	16.5565
35,069	4947	8.4	15.5797	3.7686	35,690	5037	9.2	3.8426	22.5667	36,006	5143	9.2	19.4634	0.4429
35,103	4948	8.0	16.3767	10.5099	35,684	5039	5.0	4.9386	22.0607	36,030	5144	9.2	19.6517	2.8146
35,126	4949	8.8	17.9180	15.1289	35,607	5040	8.0	5.5542	8.3011	36,007	5145	7.6	20.4632	0.2767
35,060	4950	8.1	19.2399	0.9357	35,706	5043	9.4	7.8698	25.0724	36,295	5146	9.2	20.4148	23.6054
35,175	4954	9.2	21.3759	25.2249	35,707	5044	9.2	8.1949	24.9958	36,163	5147	8.9	21.0668	12.7314
35,146	4957	8.2	24.1091	20.0348	35,593	5045	9.0	8.6392	6.0641	36,137	5148	8.4	22.0177	11.0559
35,111	4959	9.0	24.6538	11.5281	35,677	5050	9.0	10.1638	20.7622	36,208	5150	8.2	22.8398	16.4533
35,135	4960	8.2	24.6638	17.1491	35,573	5051	8.7	10.3937	3.1361	36,140	5151	8.6	25.2379	10.8637
<b>R.A. 13<sup>h</sup> 0<sup>m</sup></b>					35,702	5052	8.4	10.8449	23.7854	36,336	5153	8.0	25.2848	25.6083
35,290	4957	8.2	1.2272	20.0380	35,663	5058	9.2	15.0239	17.8650	<b>R.A. 13<sup>h</sup> 40<sup>m</sup></b>				
35,253	4959	9.0	1.6851	11.5261	35,612	5060	9.2	16.3634	8.4661	36,558	5151	8.6	2.2625	10.8560
35,277	4960	8.2	1.7525	17.1471	35,672	5061	9.3	16.9401	19.5120	36,743	5153	8.0	2.4597	25.5991
35,206	4962	8.4	2.7616	1.5287	35,669	5062	8.8	16.9456	19.0836	36,579	5154	8.6	2.6422	13.5908
35,278	4963	9.3	3.0263	17.1547	35,688	5063	9.1	17.3123	22.2715	36,456	5155	8.9	2.6015	4.6418
35,309	4966	8.4	6.0161	23.8142	35,680	5064	8.9	17.4403	21.1390	36,539	5157	9.0	4.8629	10.2232
35,225	4968	8.5	6.2779	5.1343	35,650	5065	6.8	17.7600	15.5455	36,663	5161	8.6	6.9991	19.1047
35,291	4970	9.0	7.5184	19.6520	35,657	5067	9.1	17.9307	16.9416	36,508	5162	8.8	7.5384	7.4773
35,245	4971	9.0	7.9863	9.6988	35,597	5073	8.9	19.8443	6.8183	36,405	5163	9.0	7.5908	0.9292
35,272	4973	9.0	8.5376	15.8016	35,689	5074	8.7	20.0445	21.7773	36,681	5164	9.1	8.0622	20.0362
35,262	4974	8.5	9.3738	14.0039	35,615	5075	9.2	20.8914	8.3264	36,407	5167	9.2	9.5359	0.9472
35,246	4976	8.3	10.1921	9.4146	35,704	5077	9.2	21.4773	23.4407	36,524	5169	9.4	10.1902	9.4566
35,284	4978	9.4	11.5040	17.4776	35,570	5080	9.1	24.4497	2.1142	36,654	5170	8.2	10.4106	18.2139
35,268	4980	8.6	12.2269	14.6677	35,564	5081	9.6	25.2442	1.8301	36,461	5172	8.8	10.4196	5.2318
35,234	4983	7.5	13.4095	6.6108	35,716	5082	9.0	25.1205	25.8214	..	5173	9.2	10.4657	0.1321
35,304	4985	8.2	14.2794	21.6867	<b>R.A. 13<sup>h</sup> 24<sup>m</sup></b>					36,615	5174	8.6	11.0255	15.5349
35,312	4987	9.2	14.7726	24.4144	35,760	5080	9.1	1.3850	2.1152	36,684	5175	9.4	12.1101	20.0527
35,322	4989	9.2	15.6805	24.9869	35,762	5081	9.6	2.1766	1.8235	36,543	5178	8.8	12.8784	9.9100
35,239	4993	9.2	18.9810	7.5419	35,979	5082	9.0	2.2977	25.8143	36,627	5180	9.1	13.6891	15.9287
35,288	4994	8.4	20.1717	18.6498	35,786	5083	6.8	3.6206	5.0954	36,671	5181	8.8	15.4367	19.0912
35,213	4995	9.2	21.0994	2.7254	35,770	5085	8.5	4.2493	2.8818	36,672	5183	9.5	17.2495	19.7450
35,286	4996	9.4	22.0558	17.5108	35,914	5088	7.7	6.7263	17.9128	36,646	5184	9.0	17.5881	16.8934
35,257	4997	9.3	22.1168	11.8853	35,811	5089	9.0	7.0105	8.3013	36,516	5185	8.4	18.3282	7.9156
35,270	5001	8.6	23.7821	14.7422	35,921	5091	8.9	7.9044	19.1720	36,714	5186	8.6	18.6441	22.7226
35,218	5002	9.0	24.0232	3.6259	35,823	5092	9.6	8.9512	8.6192	36,647	5187	6.5	18.6711	17.3189
35,249	5003	8.8	24.8597	9.4048	35,945	5093	9.3	9.0498	22.4141	36,606	5189	9.2	19.6436	13.9913
<b>R.A. 13<sup>h</sup> 8<sup>m</sup></b>					35,804	5094	8.9	10.7845	6.8953	36,756	5190	8.0	20.0744	25.8952
35,430	5001	8.6	0.8463	14.7490	35,938	5095	9.3	11.3526	21.3064	36,505	5192	8.9	22.8672	6.8033
35,367	5002	9.0	0.9740	3.6306	35,766	5097	9.4	13.9246	1.5808	36,591	5193	9.2	23.0431	12.6464
35,402	5003	8.8	1.8694	9.4010	35,974	5100	8.6	17.6172	25.0120	36,440	5196	9.3	24.5479	2.8363
35,351	5004	7.2	2.6141	0.8089	35,880	5106	9.2	20.6370	13.6660	<b>R.A. 13<sup>h</sup> 48<sup>m</sup></b>				
35,489	5006	9.3	4.4361	24.5694	35,808	5107	8.8	21.4201	6.5065	36,821	5196	9.3	1.4905	2.8363
35,445	5009	9.6	5.2573	17.3960	35,769	5108	8.6	22.2612	1.4933	37,071	5197	5.0	2.8101	20.6568
35,392	5010	7.8	6.5861	7.6877	35,903	5109	9.0	22.6887	15.9366	37,019	5198	9.2	2.9859	17.1124
35,395	5012	9.1	6.9638	8.4243	35,977	5112	9.2	24.7029	25.0012	36,876	5200	9.1	3.2998	7.3968
35,446	5013	9.2	8.2376	16.6382	<b>R.A. 13<sup>h</sup> 32<sup>m</sup></b>					37,113	5201	9.0	7.5883	23.3497
35,353	5014	8.6	8.8626	0.7894	36,316	5112	9.2	1.8717	24.9980	36,816	5213	9.2	14.8493	2.1221
35,413	5021	9.1	15.1543	11.7285	36,090	5115	9.0	3.8430	7.7455	36,905	5215	7.8	15.6429	9.2532
35,361	5022	8.2	15.3609	1.2989	36,124	5116	9.0	4.5242	11.0680	37,046	5216	8.4	16.0177	18.6536
35,441	5023	9.2	16.6975	15.6651						37,016	5217	8.8	16.8738	15.9078



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 13<sup>h</sup> 48<sup>m</sup> (continued)</b>					<b>R.A. 14<sup>h</sup> 12<sup>m</sup> (continued)</b>					<b>R.A. 14<sup>h</sup> 36<sup>m</sup></b>				
36,817	5218	9.1	17.7586	1.4402	38,486	5313	8.9	5.1650	24.5730	39,417	5412	8.8	1.5553	2.2505
37,108	5222	8.2	19.6367	22.1185	38,450	5315	6.3	6.9678	21.8179	39,628	5413	9.4	2.1632	17.5726
36,865	5224	9.2	19.9532	4.7211	38,219	5316	9.0	7.8296	2.1217	39,419	5415	8.7	4.0031	2.3274
37,135	5227	9.4	23.7680	24.5194	38,473	5319	9.0	8.8370	24.4981	39,648	5416	9.0	4.1946	18.3197
36,892	5228	9.0	23.8809	7.8394	38,203	5322	8.8	11.5923	0.6988	39,420	5417	9.4	4.7041	1.9273
<b>R.A. 13<sup>h</sup> 56<sup>m</sup></b>					38,495	5324	9.2	12.5159	25.3358	39,618	5418	9.2	6.3445	16.6082
37,611	5227	9.4	0.9320	24.5264	38,383	5325	9.1	12.6381	16.4660	39,649	5420	8.8	6.7646	18.4716
37,314	5228	9.0	0.8746	7.8452	38,371	5329	8.8	15.2025	16.2534	39,431	5421	8.6	7.6003	2.9041
37,380	5230	9.2	2.5078	11.2251	38,373	5330	9.1	15.8263	15.6858	39,575	5422	8.8	8.5110	13.2361
37,339	5232	9.1	3.6630	8.4970	38,221	5335	9.2	17.9988	2.3459	..	5425	Var.	9.5724	15.7286
37,450	5234	8.8	4.5320	14.6755	38,506	5337	7.5	18.4244	25.7599	39,637	5426	9.2	10.0692	17.2621
37,452	5236	8.8	5.7943	14.7305	38,260	5338	9.4	19.6318	5.3158	39,669	5428	9.0	10.8078	19.5453
37,530	5237	9.0	5.9832	20.4530	38,344	5340	8.6	21.4687	13.8435	39,436	5433	9.4	13.6512	3.0891
37,484	5239	9.1	7.5144	17.2408	38,333	5341	8.8	22.7079	13.2735	39,552	5434	9.0	13.7202	11.2111
37,532	5244	9.4	11.4283	20.5221	38,389	5342	8.9	22.9982	17.0304	39,640	5435	9.0	14.9868	17.7463
37,499	5246	8.6	14.0964	17.9154	38,262	5343	9.2	23.1864	6.1163	39,553	5436	9.1	15.3836	11.6370
37,472	5247	9.3	15.9186	15.9976	38,283	5345	9.2	24.2898	7.3702	39,735	5437	8.7	15.4837	23.6459
37,405	5249	8.8	16.3723	11.5255	38,422	5346	9.2	24.3824	18.9700	39,437	5438	8.8	15.5997	3.0494
37,406	5250	6.4	17.6592	11.6269	<b>R.A. 14<sup>h</sup> 20<sup>m</sup></b>					39,720	5440	9.2	15.6040	22.4792
37,438	5251	8.8	17.8181	14.4931	38,641	5345	9.2	1.2787	7.3722	39,756	5441	9.0	16.1613	24.0125
37,439	5253	9.2	18.0145	14.0715	38,849	5346	9.2	1.4897	18.9710	39,447	5442	9.6	17.2429	3.7429
37,473	5254	9.0	18.1631	15.9536	38,872	5350	9.2	5.2818	20.2333	39,555	5443	9.2	17.3482	11.6298
37,489	5255	9.0	20.3436	17.5957	38,750	5351	9.1	5.8282	13.4020	39,485	5445	8.4	21.4324	6.4235
37,350	5260	9.4	21.9097	8.7176	38,873	5352	9.0	6.0653	20.1746	39,690	5446	8.8	23.6917	19.9641
37,332	5261	9.2	22.0457	7.4245	38,897	5357	9.1	10.2153	20.7537	39,468	5448	8.8	24.6536	4.8828
37,491	5263	9.0	23.8051	17.1515	38,797	5363	8.2	17.1412	15.4241	39,763	5449	8.4	25.0705	24.0612
37,505	5267	9.2	23.9782	18.1336	38,965	5364	9.1	17.2743	24.2152	39,626	5450	8.0	25.3080	16.3389
37,545	5268	8.8	24.8676	20.1401	38,967	5366	9.2	18.3358	24.4391	<b>R.A. 14<sup>h</sup> 44<sup>m</sup></b>				
37,546	5269	9.0	24.8850	20.2456	38,712	5369	8.6	20.7126	11.1327	40,154	5446	8.8	0.8092	19.9722
37,610	5270	9.1	25.0692	23.0579	38,637	5372	9.2	22.1395	7.2124	39,900	5448	8.8	1.6171	4.8818
<b>R.A. 14<sup>h</sup> 4<sup>m</sup></b>					38,783	5373	9.1	22.1822	14.6074	40,218	5449	8.4	2.2297	24.0542
37,980	5263	9.0	0.8937	17.1584	38,675	5374	9.0	22.3306	8.5553	40,091	5450	8.0	2.3884	16.3301
38,000	5267	9.2	1.0770	18.1386	38,784	5375	9.2	22.4114	13.9602	39,929	5452	8.9	2.7278	6.3401
38,038	5268	8.8	1.9868	20.1360	38,676	5377	8.8	23.8790	9.0409	40,074	5455	9.2	4.7187	14.3695
38,039	5269	9.0	2.0055	20.2405	38,926	5379	9.0	24.2729	22.7227	39,868	5456	9.0	5.7648	1.6511
38,102	5270	9.1	2.2183	23.0509	38,869	5381	9.5	25.0995	19.7542	40,264	5457	9.2	6.5924	25.7808
37,898	5272	8.7	3.5753	13.5432	<b>R.A. 14<sup>h</sup> 28<sup>m</sup></b>					40,180	5458	9.2	9.8568	20.6562
37,932	5273	9.0	3.7968	15.5499	39,146	5377	8.8	0.8849	9.0467	40,019	5460	8.0	9.9754	12.0575
37,899	5277	7.8	4.6095	12.7588	39,318	5379	9.0	1.4185	22.7247	39,970	5461	9.4	10.2027	8.2710
37,984	5279	9.1	5.3401	17.3343	39,275	5381	9.5	2.2147	19.7472	39,948	5462	9.0	11.3175	8.0850
38,023	5282	8.9	7.4314	19.1824	39,050	5384	9.3	5.1414	0.2498	..	5463	9.1	11.3242	8.0722
37,712	5286	9.1	9.8054	2.1622	39,106	5385	9.0	5.4649	5.4024	39,949	5464	9.0	11.3314	8.0679
37,960	5287	8.8	11.1531	16.1380	39,123	5386	9.0	6.4416	6.8050	39,886	5465	9.4	12.2593	2.6773
38,145	5288	8.3	11.6305	25.3254	39,137	5388	9.4	7.2762	7.8311	39,856	5471	8.8	14.6748	0.8980
38,025	5290	9.0	16.0441	19.2229	39,108	5389	9.0	7.2912	5.2676	40,229	5472	9.1	14.8492	23.7707
37,942	5294	8.9	17.0234	15.0172	..	5392	7.9	8.5063	0.0314	39,936	5476	9.2	16.7299	6.4542
37,816	5296	8.8	18.0634	7.6329	39,255	5393	8.7	9.5997	18.2694	39,955	5479	9.2	17.9732	7.8667
38,015	5298	9.0	19.8362	17.9398	39,060	5397	9.0	11.0812	1.2637	39,956	5480	9.0	17.9739	7.9650
38,053	5301	9.2	20.8861	19.7952	39,051	5399	9.0	13.2293	0.4300	40,200	5481	9.1	18.0756	22.5521
37,764	5304	9.2	22.8120	4.6250	39,114	5401	8.1	14.5371	5.5526	40,148	5482	8.8	18.2277	18.5684
<b>R.A. 14<sup>h</sup> 12<sup>m</sup></b>					39,209	5402	9.2	14.8693	14.4848	40,120	5483	8.9	18.3200	16.6305
38,426	5309	9.4	3.5043	19.8065	39,065	5406	9.2	17.7038	1.2061	39,957	5485	9.2	18.4784	7.8568
38,326	5310	8.3	3.5414	12.9703	39,234	5407	9.3	19.1837	16.2817	40,137	5487	7.0	18.6945	17.4968
38,211	5311	9.3	3.6039	1.3238	39,286	5408	Var.	19.4189	20.1936	40,029	5489	9.3	19.4114	11.6030
38,472	5312	9.0	4.3992	23.5161	39,057	5409	9.2	22.1261	1.0343	40,030	5490	9.1	19.4265	11.8578
					39,331	5410	9.3	23.1928	23.7778	40,231	5491	7.3	19.4042	24.3293
					39,344	5411	9.4	23.3873	24.7235	40,068	5494	8.8	20.0096	14.1711
					39,067	5412	8.8	24.6187	2.2515	40,138	5495	8.8	20.2277	17.9951
					39,250	5413	9.4	25.0702	17.5786	39,861	5497	8.6	21.9220	0.8615
										39,926	5498	9.3	22.3604	5.7582
										39,890	5500	9.2	24.8901	2.2623
										39,963	5501	9.0	24.9320	7.2533



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 14<sup>h</sup> 52<sup>m</sup></b>					<b>R.A. 15<sup>h</sup> 8<sup>m</sup> (continued)</b>					<b>R.A. 15<sup>h</sup> 32<sup>m</sup></b>				
40,333	5500	9.2	1.8269	2.2586	41,198	5593	8.2	7.9708	3.8012	42,631	5703	8.8	2.3619	8.8963
40,396	5501	9.0	1.9196	7.2496	41,467	5594	9.2	8.4821	22.8074	42,758	5704	8.4	2.4060	14.5109
40,301	5503	8.8	4.1880	0.8328	41,165	5596	8.5	9.3953	1.4094	42,517	5707	8.8	3.4780	1.5478
40,335	5504	9.0	4.9243	2.5000	41,453	5597	8.0	9.5137	21.5600	42,823	5708	8.5	3.7379	17.3642
40,633	5505	8.8	6.1202	22.0570	41,284	5601	9.1	10.7029	10.0966	42,685	5709	7.6	5.3274	10.6522
40,382	5507	9.5	7.1492	5.8048	41,488	5602	9.3	13.2932	23.2187	42,743	5710	9.0	6.6821	13.8942
40,666	5510	8.8	7.9033	24.5342	41,319	5604	9.2	14.2496	12.6217	42,785	5711	9.1	6.8553	15.8787
40,374	5511	9.4	7.8949	4.8722	41,367	5605	9.0	14.5313	14.7118	42,825	5714	9.4	9.6059	17.3647
40,304	5513	9.4	8.7919	1.0092	41,516	5606	7.5	15.3245	25.6589	42,664	5715	8.7	9.9600	9.1834
40,383	5514	8.0	9.4051	5.7431	41,517	5607	9.0	15.4262	25.7807	42,915	5717	9.1	11.5905	21.4612
40,338	5518	8.8	11.6923	2.3393	41,389	5609	7.8	15.6276	17.7417	42,980	5718	8.4	11.6075	25.0580
40,582	5520	9.3	12.8913	19.3348	41,168	5610	9.0	15.7292	1.5688	42,705	5719	9.0	11.7069	11.9281
40,310	5521	9.0	13.1995	1.1008	41,259	5614	9.2	18.5975	7.7666	42,587	5722	8.7	13.0259	5.8172
40,604	5522	9.1	13.4504	20.3294	41,192	5618	9.3	21.6081	2.7403	42,794	5726	9.3	14.6977	15.7803
40,478	5524	7.4	14.4194	12.5505	41,308	5621	9.2	24.5542	10.9689	42,813	5731	7.8	15.8771	17.0399
40,322	5525	9.2	14.9080	2.0302	<b>R.A. 15<sup>h</sup> 16<sup>m</sup></b>					42,675	5733	9.0	16.8612	9.9072
40,465	5526	9.1	15.1099	11.1287	41,710	5621	9.2	1.5799	10.9679	42,985	5734	9.2	18.1241	24.8307
40,537	5527	8.6	16.1244	16.3416	41,931	5625	8.6	6.6508	24.1021	42,986	5735	9.1	18.1452	25.2037
40,326	5528	9.0	16.6361	1.5827	41,932	5626	9.6	6.7503	24.6231	42,964	5737	9.2	20.6254	23.8052
40,350	5533	9.4	20.9486	2.7010	41,921	5629	9.2	8.7242	23.1825	42,925	5738	9.0	21.1412	21.7467
40,698	5535	9.2	21.6550	25.6084	41,572	5631	8.8	10.3493	1.7780	42,613	5739	8.8	21.6832	6.1875
40,410	5537	9.2	23.9463	6.9070	41,908	5632	7.3	10.7794	22.5487	42,737	5741	9.2	22.1932	12.7211
40,440	5538	9.0	24.1917	8.6682	41,924	5637	8.8	11.9034	23.2836	<b>R.A. 15<sup>h</sup> 40<sup>m</sup></b>				
40,628	5540	9.2	25.2734	20.9073	41,814	5639	9.0	13.8740	16.8482	43,294	5745	9.0	2.9228	13.6817
<b>R.A. 15<sup>h</sup> 0<sup>m</sup></b>					41,926	5641	9.0	14.6013	23.7321	43,068	5746	9.0	3.1578	1.7578
40,845	5537	9.2	0.9305	6.9127	41,664	5645	9.2	16.0366	7.4096	43,343	5749	9.2	5.4883	17.5546
40,871	5538	9.0	1.1939	8.6711	41,610	5648	8.0	18.4453	3.4841	43,381	5752	9.4	7.5402	18.8309
41,026	5540	9.2	2.4004	20.8983	41,625	5650	9.5	19.5603	4.8424	43,189	5753	8.0	8.0526	7.6333
41,027	5541	9.3	2.5416	21.1241	41,784	5652	9.3	20.2246	15.2619	43,070	5756	9.3	9.6596	2.0152
41,087	5543	8.8	4.7411	25.6150	41,753	5653	9.3	20.6358	12.4963	43,346	5757	9.3	10.5965	17.6307
41,014	5544	9.2	4.7385	19.8641	41,690	5656	8.9	21.1776	8.6993	43,153	5758	9.1	10.9949	5.8303
40,963	5548	8.1	5.7984	15.8742	41,681	5657	8.9	21.1900	8.5907	43,216	5761	8.4	13.4810	8.6410
40,800	5549	8.6	7.1607	3.3944	41,958	5658	9.2	21.9877	25.3039	43,463	5762	9.3	13.9762	23.3003
40,750	5550	9.2	7.7297	0.4633	41,702	5659	9.1	23.8709	9.9200	43,464	5763	9.2	14.8165	22.9570
40,999	5555	8.3	9.8156	19.1547	<b>R.A. 15<sup>h</sup> 24<sup>m</sup></b>					43,231	5765	8.4	16.4048	10.5680
41,000	5556	8.9	9.9043	19.1563	42,146	5659	9.1	0.8858	9.9259	43,447	5768	8.3	17.6117	22.3658
41,002	5559	8.9	12.0381	18.8710	42,353	5664	8.9	3.5372	20.8156	43,367	5772	9.4	19.7606	18.6100
40,852	5562	9.6	14.4576	7.4584	42,134	5665	9.5	4.1212	9.1273	43,140	5774	9.0	20.2333	4.4935
40,874	5564	9.0	15.4505	9.1143	42,148	5667	9.1	4.2019	9.9250	43,416	5780	7.4	24.8683	20.1898
40,753	5565	9.2	15.8696	0.4530	42,355	5668	9.2	4.7238	20.7919	43,477	5783	8.0	25.3534	23.0782
41,035	5567	9.0	16.4854	21.5594	42,018	5669	9.2	4.9650	2.0558	<b>R.A. 15<sup>h</sup> 48<sup>m</sup></b>				
40,771	5568	7.7	16.5573	2.1664	42,036	5672	8.8	7.2108	2.6919	43,862	5780	7.4	1.9880	20.1857
40,931	5571	9.4	18.3416	12.7648	42,170	5673	9.1	7.5466	10.6625	43,906	5783	8.0	2.5026	23.0680
40,757	5574	9.0	18.4988	1.2320	42,087	5676	6.2	9.0131	5.4182	43,803	5784	9.0	3.3799	16.0230
40,932	5575	9.4	19.1482	13.0203	42,233	5681	7.2	12.7754	14.1503	43,804	5785	9.2	3.6881	16.2824
40,875	5577	8.7	20.5679	9.5031	42,123	5682	9.1	12.9156	7.5033	43,775	5786	8.3	3.7532	13.5531
41,023	5578	8.7	23.5353	20.5912	42,105	5683	8.6	13.2445	6.9515	43,938	5787	8.9	4.0937	24.8537
41,096	5579	9.2	24.0039	25.2280	42,198	5686	8.9	14.5155	11.9245	43,891	5789	8.9	5.0529	21.9333
40,935	5580	9.0	24.4435	13.1564	42,089	5687	9.6	14.7541	5.9614	43,692	5790	8.8	5.4787	9.3859
<b>R.A. 15<sup>h</sup> 8<sup>m</sup></b>					42,054	5689	6.5	15.9685	4.1991	43,741	5797	9.0	9.2337	12.2005
41,432	5578	8.7	0.6592	20.6002	42,139	5693	8.8	18.7367	9.1848	43,889	5798	8.6	11.7498	21.0343
41,511	5579	9.2	1.1751	25.2321	42,347	5697	8.8	21.8613	20.0929	..	5800	Var.	12.8139	0.2626
41,329	5580	9.0	1.4915	13.1564	42,312	5698	9.2	22.0620	18.0911	43,662	5801	5.3	13.3774	6.2275
41,451	5582	8.7	3.1258	21.1324	42,110	5699	6.4	22.4033	7.1825	43,618	5804	8.9	16.8001	1.7872
41,151	5583	9.3	3.6003	0.8006	42,208	5700	8.2	22.5827	11.9176	43,749	5805	9.3	18.0614	12.5374
41,254	5587	8.5	6.0378	8.0362	42,142	5703	8.8	25.3573	8.9049	43,898	5808	8.6	18.9935	21.8569
41,399	5589	9.4	7.3063	18.0118	42,241	5704	8.4	25.3442	14.5196	43,881	5810	8.9	19.4435	20.0755
41,386	5590	9.4	7.7199	17.5637						43,931	5811	9.2	19.5471	24.6119



Reference No		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 15<sup>h</sup> 48<sup>m</sup> (continued)</b>					<b>R.A. 16<sup>h</sup> 12<sup>m</sup> (continued)</b>					<b>R.A. 16<sup>h</sup> 36<sup>m</sup> (continued)</b>				
43,947	5812	9.3	19.9154	25.6443	44,918	5910	9.2	10.0498	4.2522	46,166	6009	9.1	19.0274	24.8483
43,673	5814	9.0	20.6330	6.6828	45,089	5915	8.0	15.0196	14.6965	46,112	6012	9.0	19.9441	16.0609
43,666	5816	8.8	21.4478	5.5119	44,926	5916	9.1	15.8831	3.3885	46,012	6013	9.1	23.7909	4.1947
43,674	5817	9.0	21.5596	7.4133	45,029	5918	9.2	17.0768	10.3795	46,073	6014	8.8	25.4425	9.6376
43,675	5822	8.7	24.4935	7.2839	45,002	5921	9.0	18.3671	9.0856	46,107	6015	9.1	25.8291	14.9965
43,732	5824	8.2	25.2594	10.6143	44,927	5922	8.8	18.6627	3.9363	<b>R.A. 16<sup>h</sup> 44<sup>m</sup></b>				
<b>R.A. 15<sup>h</sup> 56<sup>m</sup></b>					45,104	5924	9.2	19.5674	16.0308	46,218	6013	9.1	0.7474	4.2022
44,077	5822	8.7	1.4815	7.2839	45,040	5926	8.8	21.1497	11.1106	46,254	6014	8.8	2.4544	9.6279
44,138	5824	8.2	2.2814	10.6066	45,137	5927	9.2	22.4564	18.4995	46,281	6015	9.1	2.8957	14.9826
<b>R.A. 16<sup>h</sup> 20<sup>m</sup></b>					<b>R.A. 16<sup>h</sup> 28<sup>m</sup></b>					46,292	6017	8.7	3.7284	17.9446
44,192	5830	9.2	3.3302	14.3534	45,400	5928	9.0	4.7507	12.0243	46,296	6018	9.3	3.9144	19.4542
44,252	5831	8.8	3.5877	18.5272	45,393	5929	7.0	4.8224	10.4179	46,256	6019	9.3	3.9489	9.5257
44,194	5833	9.2	4.4254	15.0409	45,484	5932	9.1	9.1876	19.1611	46,215	6026	8.2	9.3903	2.7905
44,002	5834	8.3	5.9377	0.2384	45,456	5936	8.8	9.9452	16.9402	46,328	6028	9.3	10.5564	24.1490
44,169	5835	8.8	6.0839	13.0345	45,305	5937	9.0	11.7643	0.5199	46,249	6029	8.6	11.9075	8.1586
44,040	5837	7.0	9.3004	3.8662	45,500	5940	8.3	16.5901	19.5015	46,223	6030	9.0	12.2012	3.9280
44,054	5838	9.2	9.5803	5.4676	45,461	5941	9.2	19.0704	16.6824	46,329	6033	9.4	13.9462	24.4433
44,213	5839	9.2	10.1076	15.6034	45,501	5943	8.8	19.4157	20.4727	46,271	6035	9.6	15.7469	13.1137
44,265	5844	9.1	15.4138	20.0026	45,310	5944	7.4	20.3805	0.8689	46,236	6036	7.5	16.3866	5.4957
44,324	5845	8.9	15.5483	23.7154	45,534	5945	8.1	21.4988	22.1682	46,318	6037	8.4	17.5448	22.2224
44,266	5847	9.3	15.7470	20.3814	45,447	5946	9.0	21.5516	16.0650	46,301	6038	9.0	19.3532	18.9728
44,198	5848	9.2	16.2852	14.8127	45,411	5948	9.3	22.1310	12.3818	46,204	6042	9.3	21.5152	0.7245
44,336	5849	8.3	17.4091	24.9078	45,311	5951	9.5	24.1268	0.2508	46,205	6045	9.4	22.2016	1.3793
44,162	5850	9.1	17.7752	11.7611	45,585	5952	9.1	24.0332	25.2606	46,319	6046	8.2	24.8307	22.7588
44,031	5851	8.8	18.3919	2.5070	<b>R.A. 16<sup>h</sup> 36<sup>m</sup></b>					46,226	6047	9.3	25.4815	3.9536
44,093	5854	9.0	21.6884	8.3284	45,985	5985	9.2	1.0425	3.1486	<b>R.A. 16<sup>h</sup> 52<sup>m</sup></b>				
<b>R.A. 16<sup>h</sup> 4<sup>m</sup></b>					46,053	5986	8.6	1.1433	8.7994	46,525	6046	8.2	1.9740	22.7547
44,444	5860	9.2	4.3874	4.3165	46,167	5989	7.5	3.5140	25.2522	46,371	6047	9.3	2.4355	2.9441
44,537	5862	8.7	5.4332	9.0894	46,145	5990	9.1	4.4115	21.3858	46,526	6051	8.9	7.8574	21.9509
44,740	5863	9.0	5.8558	21.0074	46,030	5992	8.5	7.4480	5.9873	46,413	6052	7.8	7.9900	8.7698
44,725	5864	8.9	5.9808	20.2767	46,095	5995	9.2	10.0010	14.4116	46,552	6055	9.0	9.5009	24.6830
44,447	5867	9.2	7.2539	3.9765	45,989	5997	8.9	10.4873	3.1223	46,527	6059	9.0	11.0191	22.2390
44,795	5871	8.0	8.3036	24.6735	46,156	6000	7.6	11.5931	23.3736	46,504	6060	8.8	11.1074	20.8862
44,580	5872	8.9	8.8797	11.4205	46,131	6001	5.0	12.3926	19.5853	46,565	6061	9.2	12.5644	25.3151
..	5874	9.4	11.0206	0.0177	46,066	6002	8.8	12.4609	9.8751	46,516	6064	9.0	14.2452	21.4280
44,633	5876	9.0	12.0394	14.0192	45,771	5981	8.8	22.3277	12.4842	46,465	6066	9.2	14.5934	16.7553
44,619	5877	9.2	12.1173	12.9376	45,805	5983	9.2	23.3290	16.0930	46,542	6069	9.2	15.3808	23.7596
44,606	5878	8.8	12.3715	12.0541	45,669	5985	9.2	24.0967	3.1449	46,420	6073	8.8	17.4164	10.0029
44,562	5880	9.2	13.3906	10.5710	45,734	5986	8.6	24.1398	8.7956	46,354	6078	8.9	19.6221	0.7757
44,820	5881	7.0	13.4573	25.9026	<b>R.A. 16<sup>h</sup> 36<sup>m</sup></b>					46,400	6079	8.6	19.8313	6.9433
44,785	5883	8.4	17.2981	23.2704	45,985	5985	9.2	1.0425	3.1486	46,569	6080	9.1	19.8955	25.7745
44,747	5884	9.1	18.1266	21.8786	46,053	5986	8.6	1.1433	8.7994	46,360	6082	9.2	22.3974	1.6914
44,800	5885	7.6	19.4717	24.6836	46,167	5989	7.5	3.5140	25.2522	46,462	6083	8.7	22.7447	15.3820
44,504	5886	9.0	19.6588	7.5560	46,145	5990	9.1	4.4115	21.3858	<b>R.A. 17<sup>h</sup> 0<sup>m</sup></b>				
44,789	5892	8.3	23.5222	23.1639	46,030	5992	8.5	7.4480	5.9873	46,655	6085	9.6	2.8654	3.8688
44,424	5894	9.4	24.8855	1.6804	46,095	5995	9.2	10.0010	14.4116	46,600	6086	9.2	3.3818	1.1010
44,698	5895	9.0	24.9023	18.8248	45,989	5997	8.9	10.4873	3.1223	46,679	6088	9.0	5.8088	5.9463
44,802	5896	9.0	25.3573	24.3505	46,156	6000	7.6	11.5931	23.3736	46,618	6093	8.8	8.1923	1.6248
<b>R.A. 16<sup>h</sup> 12<sup>m</sup></b>					46,131	6001	5.0	12.3926	19.5853	46,829	6095	8.7	8.5986	14.7509
45,204	5892	8.3	0.6723	23.1730	46,066	6002	8.8	12.4609	9.8751	47,026	6096	8.6	9.0753	24.9891
44,870	5894	9.4	1.8164	1.6767	45,990	6004	8.7	13.2641	3.0480	46,830	6097	9.3	9.1137	15.3334
45,144	5895	9.0	2.0047	18.8197	46,075	6005	9.0	14.5764	11.0059	46,875	6098	8.2	9.2410	17.1845
45,231	5896	9.0	2.5195	24.3402	46,118	6007	9.3	18.5642	16.9203	46,681	6099	9.4	9.4772	5.8175
44,895	5897	8.7	2.4905	2.7864	<b>R.A. 16<sup>h</sup> 36<sup>m</sup></b>					46,734	6100	9.2	9.4901	8.5517
45,080	5898	9.1	2.8628	14.9873	45,985	5985	9.2	1.0425	3.1486	<b>R.A. 17<sup>h</sup> 0<sup>m</sup></b>				
44,931	5899	8.7	3.1052	4.4581	46,053	5986	8.6	1.1433	8.7994	46,655	6085	9.6	2.8654	3.8688



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 17<sup>h</sup> 0<sup>m</sup> (continued)</b>					<b>R.A. 17<sup>h</sup> 16<sup>m</sup> (continued)</b>					<b>R.A. 17<sup>h</sup> 32<sup>m</sup></b>				
46,748	6102	9.0	9.8365	9.5825	47,703	6199	7.5	3.0918	3.4761	49,689	6299	8.8	2.0047	22.2190
46,963	6104	8.6	10.0969	22.8129	47,638	6201	9.0	3.4499	2.1764	49,433	6300	9.1	2.3728	13.8502
47,006	6109	8.6	12.9410	24.7487	..	6203	8.5	4.0615	0.0901	49,484	6301	9.2	2.7137	16.0380
46,965	6112	9.2	14.2793	22.7062	48,186	6206	9.2	5.6691	21.6016	49,278	6303	9.0	4.3763	7.6807
46,672	6114	9.2	16.3129	4.6974	48,324	6209	8.8	6.5736	25.0287	49,564	6305	9.5	4.6497	18.4203
46,718	6115	8.9	16.4566	8.0011	48,188	6210	9.4	7.1444	21.4246	49,152	6306	9.2	5.3336	2.6053
46,664	6116	9.2	16.9643	4.0905	48,190	6211	6.5	7.4712	20.8317	49,488	6313	9.2	8.0345	15.8972
46,853	6117	9.4	18.1435	16.3693	47,679	6212	9.0	7.6041	2.8794	49,223	6314	9.0	8.1501	5.4648
46,607	6119	Var.	18.8323	0.5192	47,824	6213	8.9	8.0136	7.9500	49,694	6316	8.0	8.4054	22.5645
46,856	6120	9.0	18.9943	15.8712	47,927	6214	9.1	9.4987	10.7008	49,157	6318	9.0	9.3116	2.5389
46,989	6122	9.3	19.2513	23.8769	48,291	6217	9.1	11.2644	24.2227	49,285	6319	8.9	9.4697	7.7806
46,886	6124	6.5	19.9826	18.7298	48,292	6218	9.2	11.3697	24.3760	49,717	6321	9.1	10.2584	23.6859
47,037	6126	8.8	20.4771	25.4804	47,955	6220	9.4	12.0260	11.8362	49,289	6326	9.2	10.9658	7.4835
46,784	6127	8.6	20.5728	12.0143	48,195	6221	9.0	13.3364	21.1004	49,290	6327	9.2	11.0219	7.5442
46,753	6128	8.4	22.3205	10.2816	48,005	6222	9.0	13.6537	14.4487	49,321	6328	9.0	11.4345	8.8984
46,890	6129	9.0	22.3599	18.2954	48,043	6226	8.6	14.6336	15.9082	49,109	6332	9.0	12.2287	0.2844
46,648	6135	8.7	24.7745	3.2451	48,044	6227	9.4	14.9965	15.9682	49,696	6333	8.9	12.4805	22.1902
46,992	6136	8.9	24.9574	23.6855	48,156	6228	8.4	15.2000	20.2737	49,203	6337	9.2	12.8387	4.6726
<b>R.A. 17<sup>h</sup> 8<sup>m</sup></b>					48,339	6231	9.2	16.7730	25.2500	49,112	6339	9.3	15.0843	0.9984
47,136	6135	8.7	1.7213	3.2423	48,266	6232	8.8	17.5394	23.5067	49,578	6343	9.0	16.6369	17.6653
47,486	6136	8.9	2.1127	23.6794	..	6233	7.8	18.3366	0.3238	49,613	6347	9.4	19.6300	19.3865
47,115	6137	8.8	2.7703	1.5270	48,046	6234	9.0	18.4797	16.5610	49,473	6349	9.0	20.9420	15.5648
47,154	6139	9.2	4.3670	3.7684	48,347	6235	9.0	20.0557	25.4930	49,806	6351	9.0	21.2188	25.3839
47,202	6141	8.2	5.1154	7.1112	47,629	6237	9.2	21.3694	1.0210	49,767	6354	9.3	22.9167	23.8850
47,538	6142	9.3	5.2188	25.4208	47,776	6238	9.1	21.5810	6.5524	49,476	6355	9.0	23.0661	15.3933
47,425	6143	9.0	5.4551	20.0229	47,661	6239	9.0	21.7650	1.7865	49,622	6356	9.0	23.6853	19.5124
47,169	6148	8.6	6.4688	5.4268	47,848	6243	9.0	23.6975	7.9009	49,646	6360	9.1	24.5076	20.3230
47,309	6151	8.4	8.5867	14.4896	47,749	6244	9.0	24.0011	5.3047	49,735	6361	9.1	24.5173	23.8187
47,544	6152	9.0	9.1655	25.1870	<b>R.A. 17<sup>h</sup> 24<sup>m</sup></b>					49,705	6362	9.3	24.8680	22.5750
47,386	6153	8.6	9.1789	18.7865	48,546	6243	9.0	0.6919	7.9085	49,430	6363	8.8	25.3844	13.0452
47,492	6154	9.0	9.5499	23.3919	48,505	6244	9.0	0.9690	5.3095	49,268	6364	9.0	25.4495	6.4427
47,387	6157	9.0	9.8044	18.6579	48,672	6246	8.7	2.6947	12.9310	<b>R.A. 17<sup>h</sup> 40<sup>m</sup></b>				
47,190	6159	9.0	10.7315	5.7283	48,430	6248	9.2	3.2619	1.9365	50,367	6356	9.0	0.7982	19.5204
47,124	6165	9.3	13.0773	2.3592	48,745	6249	9.0	3.6677	16.4488	50,368	6260	9.1	1.6287	20.3220
47,316	6168	9.0	14.4196	13.8815	48,401	6252	9.0	5.2270	1.1075	50,454	6361	9.1	1.6739	23.8177
47,370	6169	8.7	14.5930	17.1830	48,990	6258	8.8	9.5141	23.9452	50,419	6362	9.3	2.0121	22.5699
47,320	6176	8.6	18.2375	14.3728	48,406	6259	9.3	10.6293	0.2457	50,219	6363	8.8	2.4311	13.0365
47,548	6177	9.0	18.3734	25.8086	48,407	6260	9.0	10.9691	0.5329	50,063	6364	9.0	2.4289	6.4331
47,239	6179	9.1	19.2758	9.2847	48,531	6262	8.9	11.6457	7.1169	49,903	6370	8.7	3.5566	0.3384
47,130	6180	8.4	19.4725	1.9904	48,409	6264	8.0	12.2441	0.4484	50,458	6372	9.4	4.4375	23.8272
47,150	6181	9.3	20.0391	2.7435	48,932	6265	9.0	12.5847	21.7427	50,328	6374	9.2	5.8422	18.5094
47,112	6183	9.0	20.3763	0.8232	48,904	6266	9.0	12.5923	21.7104	50,156	6376	8.8	6.5301	10.2197
47,551	6184	9.0	21.2181	25.3179	48,842	6267	9.2	12.7878	19.1432	50,403	6378	8.8	8.1838	21.3789
47,476	6185	8.2	21.3156	22.6457	48,411	6268	8.7	13.4092	0.2299	50,330	6380	8.2	8.5920	17.7061
47,304	6186	9.2	21.3547	13.5155	48,934	6269	8.6	13.4134	21.7881	50,185	6381	8.4	8.7877	10.8263
47,134	6187	8.9	21.6958	2.2863	48,812	6273	9.0	14.8537	17.7391	50,245	6382	8.7	9.0678	14.2084
47,195	6188	9.0	21.9951	6.2810	48,938	6277	9.1	15.4048	22.6196	50,159	6383	9.0	9.6931	9.7809
47,507	6189	9.0	22.0814	23.4411	48,756	6281	8.5	16.2693	16.5478	50,267	6384	8.8	10.4855	15.2014
47,417	6190	8.9	22.2010	19.5731	48,441	6282	9.1	16.4508	2.0569	50,160	6386	8.8	10.6885	9.6369
47,481	6192	9.4	23.6498	22.1593	48,711	6283	8.6	17.0505	13.7902	50,268	6388	9.2	11.4505	15.3245
47,460	6193	9.2	24.0048	21.6678	49,026	6285	9.2	17.6856	25.0364	50,378	6390	9.2	13.2316	20.2606
<b>R.A. 17<sup>h</sup> 16<sup>m</sup></b>					48,759	6286	9.3	18.9667	15.9952	50,104	6392	8.4	14.1527	7.5979
48,215	6192	9.4	0.7897	22.1674	48,448	6287	8.5	20.4571	1.2522	49,915	6394	9.0	15.4333	0.5642
48,176	6193	9.2	1.1396	21.6719	48,819	6291	7.9	22.0596	18.1058	50,445	6397	8.8	15.6446	23.2027
47,819	6195	9.3	2.8269	7.8842	49,003	6292	9.2	22.9394	24.6752	50,212	6398	9.2	15.6766	11.9083
					48,453	6293	8.6	23.0480	1.9651	50,502	6401	8.2	17.5689	25.8431
					48,767	6294	9.0	23.2774	15.7993	49,919	6403	9.4	19.7610	0.6418
					48,949	6299	8.8	24.8642	22.2241	50,298	6404	9.6	20.3239	16.1469
					48,717	6300	9.1	25.3180	13.8589	50,195	6405	8.6	20.5582	10.5129



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
R.A. 17 <sup>h</sup> 40 <sup>m</sup> (continued)					R.A. 18 <sup>h</sup> 4 <sup>m</sup>					R.A. 18 <sup>h</sup> 12 <sup>m</sup> (continued)				
50,007	6407	9.2	22.3616	3.6037	51,877	6520	9.2	2.9663	9.3740	52,738	6629	9.1	8.2344	11.5211
49,975	6408	9.4	24.3920	2.5954	52,027	6522	9.1	3.6792	15.5280	52,704	6631	9.0	8.5032	11.0082
50,301	6409	9.0	24.7556	16.4206	51,951	6525	8.8	4.1472	12.1959	52,613	6635	8.8	10.2536	7.6219
R.A. 17 <sup>h</sup> 48 <sup>m</sup>					51,846	6529	9.0	5.5992	9.0178	53,158	6636	9.0	10.2754	24.7229
50,602	6408	9.4	1.3322	2.5964	52,324	6534	8.6	6.8017	25.4625	52,592	6637	9.0	10.4044	6.1566
50,940	6409	9.0	1.8377	16.4175	51,610	6535	9.0	7.1350	1.6426	52,914	6640	7.0	11.2070	17.8994
50,708	6411	9.1	3.2284	6.4114	52,001	6536	7.5	7.2863	15.0234	52,771	6641	9.0	11.4993	12.5622
50,553	6413	8.4	3.3049	0.3032	51,849	6538	9.3	7.7931	8.5677	52,474	6643	9.2	11.6471	2.2703
50,606	6414	8.8	4.1821	2.5066	51,603	6540	9.0	7.9715	0.6796	52,530	6645	9.0	12.1658	4.3228
50,945	6416	9.0	4.7787	15.7438	52,179	6541	9.0	9.2442	21.8900	52,531	6646	9.4	12.1694	5.0515
50,811	6417	9.0	4.9754	9.5512	51,784	6542	8.3	9.2590	6.1662	52,748	6649	9.2	12.6852	11.7087
50,710	6419	9.0	5.8863	5.5792	51,785	6543	9.0	9.2921	7.0389	53,075	6652	9.0	13.1951	23.3908
50,814	6426	9.0	8.1299	10.0979	52,290	6545	9.0	10.0934	24.8403	52,974	6655	7.5	14.6475	19.8629
50,643	6428	9.4	8.7450	4.1737	52,103	6546	9.2	10.2368	19.2689	52,828	6657	8.9	15.0406	14.7669
50,859	6429	8.0	8.7747	12.3156	51,960	6547	9.1	10.4731	13.1034	52,565	6664	9.0	15.8180	5.1593
51,171	6430	8.6	8.8389	25.7849	51,747	6550	9.0	10.9884	6.0166	52,683	6665	9.3	16.3309	9.4044
50,774	6431	8.6	8.8897	8.5181	52,130	6554	9.4	12.5523	19.5893	52,685	6667	8.8	16.6494	9.3552
50,647	6432	9.3	9.9695	4.1372	51,932	6555	8.8	12.5980	11.2587	52,540	6669	8.8	16.7226	5.0970
50,998	6433	8.8	11.4584	18.5239	52,035	6562	8.9	13.8539	15.6788	52,568	6670	8.9	16.7374	5.9812
50,683	6434	9.2	11.6661	5.1557	52,181	6563	8.8	13.9344	22.0077	53,050	6674	9.0	17.8145	22.1703
50,953	6436	9.2	12.7622	16.1470	51,718	6564	9.0	14.2403	4.3506	52,449	6675	9.2	18.2778	1.6129
50,975	6437	8.9	13.4590	17.6872	52,185	6566	8.7	14.9875	22.3145	52,450	6677	9.2	18.4639	1.7607
50,689	6440	9.7	16.8066	4.7855	51,891	6567	8.9	15.1865	10.1221	53,083	6678	7.2	18.7165	22.5095
50,828	6443	9.0	18.9503	9.7537	51,914	6568	8.8	15.1974	10.2175	53,018	6679	8.8	18.9162	20.8460
51,009	6446	9.1	19.6784	18.0456	51,916	6569	8.8	15.3937	11.1203	52,835	6680	9.0	18.9887	14.3747
50,760	6452	9.0	21.4981	7.4560	52,257	6570	8.6	15.4430	24.2417	52,799	6681	9.2	19.2424	14.2209
50,957	6455	9.0	22.3697	16.1674	52,009	6571	9.2	15.6477	14.9166	52,800	6682	9.2	19.4379	14.2154
51,187	6456	9.2	22.4916	25.9276	51,892	6572	9.1	15.6542	9.7930	52,843	6683	9.4	19.8086	14.9157
50,802	6458	8.9	22.8817	8.7481	52,010	6573	8.8	15.6988	14.9469	52,844	6688	9.1	20.5942	14.8894
51,188	6459	9.1	22.9991	25.5803	52,112	6574	9.2	16.5708	19.0770	52,513	6689	9.2	20.7522	3.9278
50,835	6462	8.8	24.5967	10.4235	52,087	6576	8.8	16.8900	17.8479	52,845	6690	9.2	20.7366	14.7481
R.A. 17 <sup>h</sup> 56 <sup>m</sup>					51,894	6578	8.8	17.1024	9.6941	53,089	6691	8.9	21.0365	22.5151
51,380	6462	8.8	1.6168	10.4225	51,656	6581	9.0	18.6295	2.2158	52,515	6692	9.6	21.1295	3.6890
51,262	6465	9.3	2.9691	1.7980	51,935	6584	8.8	18.7247	11.9933	53,022	6693	9.1	21.1491	21.4130
51,392	6468	8.0	4.1082	11.1809	52,089	6588	9.0	19.9120	17.7994	52,454	6695	9.2	21.7450	1.8601
51,499	6469	9.2	4.8196	22.2221	51,767	6592	8.2	20.7211	5.8568	52,846	6697	8.4	22.1562	15.3632
51,314	6470	9.1	4.9478	4.8920	51,631	6595	8.5	21.2960	1.3865	52,456	6698	9.4	22.4438	1.7514
51,513	6476	9.0	8.0978	22.3331	52,090	6596	8.4	21.3528	18.2783	52,923	6700	8.6	22.5362	18.1321
51,267	6479	8.4	8.5380	1.7267	51,837	6597	8.0	21.6821	8.2091	52,459	6702	9.2	22.8404	1.6235
51,550	6485	8.7	10.7256	25.8304	51,729	6598	9.2	21.7373	4.8539	52,574	6703	8.6	22.9875	6.0611
51,433	6487	6.9	11.7793	14.8349	51,730	6599	9.2	21.7807	4.6818	52,575	6704	8.7	23.2160	6.0449
51,344	6489	8.9	12.7578	6.2765	52,022	6604	8.9	24.2624	15.2272	52,894	6706	9.4	24.0385	16.9269
51,311	6493	8.8	14.1696	3.6814	52,023	6605	9.1	24.2944	15.0389	53,140	6707	9.1	24.0706	24.3468
51,519	6494	9.0	14.3957	23.0902	R.A. 18 <sup>h</sup> 12 <sup>m</sup>					52,781	6708	9.0	24.4654	12.8906
51,435	6496	9.0	14.5587	14.5255	52,851	6604	8.9	1.3315	15.2292	52,577	6709	8.4	24.6294	5.4746
51,474	6497	8.2	15.5109	19.2662	52,812	6605	9.1	1.3616	15.0409	52,958	6710	9.2	25.3951	18.7259
51,554	6498	9.1	16.2794	25.8681	53,146	6608	9.0	3.2190	24.7890	R.A. 18 <sup>h</sup> 20 <sup>m</sup>				
51,466	6499	8.1	16.6603	17.9741	52,902	6609	9.0	3.8773	17.7142	53,465	6706	9.4	1.1250	16.9309
51,543	6500	9.0	16.7915	24.7378	52,468	6612	9.1	5.3425	2.2710	53,580	6707	9.1	1.2328	24.3509
51,482	6502	8.0	17.3847	20.3380	52,431	6613	9.0	5.3714	1.7014	53,409	6708	9.0	1.5107	12.8906
51,555	6503	9.2	18.2489	25.5756	52,996	6614	9.2	5.5366	21.0175	53,313	6709	8.4	1.5990	5.4736
51,412	6504	9.1	19.1445	12.2637	52,816	6616	8.8	5.6926	14.6298	53,494	6710	9.2	2.4998	18.7159
51,451	6506	8.2	20.2620	17.2963	52,735	6617	8.2	5.9322	11.3484	53,410	6713	9.0	3.1009	12.1935
51,427	6508	8.6	21.0949	13.4447	52,700	6618	8.9	6.1434	10.9178	53,275	6715	9.0	3.2011	2.4489
51,277	6512	8.9	22.1946	1.2071	52,405	6619	9.4	6.1396	0.8396	53,483	6716	8.9	3.5893	17.2259
51,455	6515	9.2	23.3359	16.5851	52,408	6621	8.8	7.0002	0.1018	53,495	6717	9.1	3.9716	18.5169
51,279	6516	9.4	23.4692	2.0305	52,767	6622	8.6	7.1043	13.0334	53,286	6718	9.0	3.9647	3.3081
					52,435	6624	9.0	7.3768	1.6664	53,496	6719	9.0	4.4628	18.9587
					52,409	6625	9.4	7.4765	0.1803	53,412	6720	8.6	4.4863	12.6928
					53,002	6626	8.2	7.6686	20.6795	53,542	6722	8.6	4.9507	21.7249
					52,437	6627	9.4	7.8276	1.4350	53,420	6723	9.0	5.3128	13.8097



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
R.A. 18 <sup>h</sup> 20 <sup>m</sup> (continued)					R.A. 18 <sup>h</sup> 28 <sup>m</sup> (continued)					R.A. 18 <sup>h</sup> 44 <sup>m</sup> (continued)				
53,358	6724	8.5	5.4247	8.7251	53,823	6829	9.2	16.0577	3.5188	55,066	6925	8.2	6.5316	2.0721
53,387	6726	9.0	5.8491	10.1710	54,276	6832	8.1	16.8173	13.7666	55,111	6926	9.4	6.9114	3.9083
53,470	6727	9.1	5.9206	17.0659	53,880	6833	9.1	17.3801	4.5454	55,220	6927	9.6	6.9899	8.8519
53,432	6728	9.4	6.1820	15.1050	54,174	6834	9.4	17.4004	11.8017	55,295	6930	7.2	7.8413	11.6246
53,451	6729	9.2	6.4940	15.9618	53,824	6835	8.2	17.5533	3.6114	55,315	6931	9.2	7.9203	12.9134
53,583	6731	9.2	9.4143	24.6304	54,353	6842	8.6	21.2788	16.4797	55,186	6932	7.8	8.2716	7.3494
53,400	6735	9.0	9.9800	11.2045	53,737	6844	8.1	21.7556	1.3473	55,368	6935	8.5	9.9675	14.7557
53,472	6736	9.0	10.1176	16.6292	54,138	6845	9.0	21.8292	10.5484	55,145	6937	9.0	10.4225	5.2578
53,299	6738	8.5	10.4447	4.9598	53,937	6846	8.7	22.1167	5.4994	55,319	6939	9.1	11.0658	12.9385
53,388	6739	9.0	10.8333	10.8021	54,650	6847	9.1	22.3000	25.1311	55,280	6942	7.6	12.1280	11.0249
53,511	6741	9.2	11.3807	19.8755	53,890	6848	8.8	22.7457	5.2045	55,321	6943	8.2	12.4521	13.2111
53,342	6744	9.1	11.8498	7.7596	53,785	6850	9.6	22.9325	2.4412	55,323	6944	9.2	13.0679	13.3970
53,435	6746	9.2	12.9140	14.5843	54,466	6854	9.1	23.6828	19.6354	55,630	6947	8.6	13.6975	25.6268
53,302	6747	9.3	13.0187	4.0602	54,358	6853	9.3	24.0935	15.9351	55,410	6948	9.3	14.6723	17.2098
53,255	6749	8.4	14.1052	0.9061	54,359	6854	9.2	24.3461	15.9658	55,282	6951	8.7	15.6603	11.4813
53,401	6751	9.1	14.3062	11.5528	54,398	6856	7.6	24.6053	16.8211	55,568	6953	8.9	16.3895	23.8630
53,390	6754	10.0	15.2824	10.9842	54,286	6858	9.2	24.9670	13.5435	55,537	6955	9.0	17.0032	22.8670
53,547	6755	8.0	15.3907	21.5498	R.A. 18 <sup>h</sup> 36 <sup>m</sup>					55,454	6956	9.2	17.2210	19.2134
53,457	6756	8.4	16.2126	16.0744	54,923	6852	9.1	0.7969	19.6434	55,124	6957	8.6	17.3460	4.3179
53,488	6757	8.6	16.6571	17.6020	54,879	6853	9.3	1.1699	15.9390	55,394	6958	7.4	17.3898	16.2580
53,478	6759	8.5	16.9310	17.0588	54,880	6854	9.2	1.4227	15.9668	55,324	6959	9.0	17.5027	12.8395
53,414	6760	9.0	17.1506	12.9175	54,893	6856	7.6	1.6907	16.8191	55,431	6962	8.4	18.1853	18.1384
53,334	6764	7.8	18.1807	6.8600	54,855	6858	9.2	2.0190	13.5386	55,210	6964	8.6	18.9640	8.5506
53,564	6765	6.9	19.0167	23.3388	54,752	6860	8.4	3.9199	5.7771	55,330	6965	8.9	19.4013	12.8145
53,281	6769	9.0	20.0414	2.1468	54,818	6867	8.9	7.9130	10.9451	55,169	6966	9.0	19.6250	6.1652
53,392	6771	9.0	20.5541	10.1709	54,956	6868	9.2	7.9886	23.3303	55,191	6970	7.8	22.3263	7.0421
53,422	6773	9.0	20.8853	13.4940	54,796	6874	9.3	11.0607	8.6094	55,193	6972	9.3	23.2121	6.9961
53,337	6777	8.2	22.3897	6.7624	54,876	6877	8.8	11.6671	15.0104	55,333	6974	9.2	23.9048	13.6951
53,490	6781	9.2	23.6208	18.0330	54,710	6878	8.8	12.3287	1.9529	55,134	6975	9.0	24.3612	4.4235
53,282	6782	8.9	24.0449	2.9357	54,994	6879	9.0	12.3368	25.9773	R.A. 18 <sup>h</sup> 52 <sup>m</sup>				
53,380	6783	8.8	24.0501	9.5022	54,830	6881	9.0	13.2827	11.8150	55,878	6974	9.2	0.9582	13.7010
53,395	6784	9.4	24.6539	10.3927	54,764	6882	8.4	13.4229	6.7808	55,755	6975	9.0	1.3200	4.4255
R.A. 18 <sup>h</sup> 28 <sup>m</sup>					54,862	6883	7.8	14.0695	14.2729	55,796	6978	9.3	2.8918	7.5032
54,404	6781	9.2	0.7185	18.0419	54,704	6885	8.6	14.5194	0.4128	55,936	6981	9.0	4.4606	16.4857
53,748	6782	8.9	0.9885	2.9404	54,976	6886	9.3	14.6912	24.3784	55,798	6982	9.2	4.4485	7.2609
54,061	6783	8.8	1.0608	9.5070	54,705	6888	8.6	15.0776	1.0127	55,999	6984	9.0	4.5860	21.1537
54,109	6784	9.4	1.6736	10.3907	54,711	6890	9.0	15.1503	1.3359	55,814	6986	8.5	4.7759	8.8201
53,789	6788	8.6	2.5227	4.1081	54,959	6894	8.9	16.0864	23.1242	56,021	6988	9.1	5.8841	22.0979
54,062	6789	8.8	3.6736	9.4408	54,788	6896	9.2	16.8747	7.6228	55,799	6991	9.4	6.5013	7.7317
54,368	6791	8.9	4.5664	16.9397	54,832	6899	8.5	17.7501	11.5998	55,787	6992	9.0	6.5447	6.9854
53,662	6792	9.4	4.5372	0.9894	54,914	6902	9.2	17.8219	19.1859	56,054	6993	8.9	6.8566	23.4847
54,035	6793	8.8	4.9465	8.7128	54,942	6903	8.8	18.4180	20.7301	55,789	6994	8.0	7.1822	6.7116
54,578	6796	9.0	5.7809	23.1993	54,845	6906	8.1	18.9289	13.4871	56,083	6995	8.8	7.4479	25.4686
53,712	6799	8.6	6.5504	1.5619	54,834	6907	9.3	21.4099	11.7887	56,024	6996	9.0	7.5000	21.5065
54,197	6800	9.6	7.1066	13.3558	54,722	6908	9.1	21.8690	3.2105	55,940	6999	9.1	7.7309	17.1620
53,764	6803	9.4	8.8227	3.0934	54,835	6910	9.4	23.0501	11.6007	55,829	7000	9.1	8.1092	9.3986
53,862	6804	8.7	8.9328	4.5310	54,813	6911	9.5	23.4481	9.8213	55,987	7001	9.1	8.9261	20.3838
53,679	6806	8.8	9.2515	1.0477	54,792	6912	9.4	23.6970	8.2994	55,865	7002	9.0	9.2263	11.2358
54,042	6812	8.4	10.8498	8.5976	54,944	6913	7.8	23.8713	20.7977	55,989	7003	7.8	9.9558	19.8847
54,169	6813	8.8	11.2683	12.0397	R.A. 18 <sup>h</sup> 44 <sup>m</sup>					55,948	7004	8.8	10.2370	17.5171
53,772	6815	8.2	11.8975	2.4172	55,198	6912	9.4	0.6955	8.3070	55,818	7008	9.2	13.2855	9.1080
54,170	6816	8.4	11.9965	12.3459	55,492	6913	7.8	0.9972	20.8037	56,086	7009	9.4	14.3512	25.7766
54,171	6818	9.3	12.4541	11.7088	55,270	6917	9.3	2.8781	11.1766	55,992	7011	9.4	15.2076	20.3614
54,480	6821	8.9	13.6081	20.3597	55,088	6918	9.6	2.9862	2.9447	55,849	7012	8.9	15.3611	10.2533
54,228	6822	9.0	13.8244	12.9072	55,292	6919	9.0	4.3015	12.0227	56,088	7014	8.5	15.8601	25.8981
54,010	6824	8.6	14.0141	7.9102	55,274	6924	9.0	5.5080	10.6936	55,704	7015	8.4	16.8929	0.9473
54,554	6825	9.0	14.0771	22.2468						55,920	7016	9.2	16.9363	15.6540
54,229	6826	8.7	14.7136	13.1853						56,075	7018	8.2	17.6891	25.2024
54,127	6827	8.9	15.3443	10.7842						55,746	7020	8.5	18.4480	3.9445
										55,780	7024	9.4	19.6661	5.2477

Note.—The Co-ordinates for Washington 6754 are based on the revised position given in A.N. 4833.



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
R.A. 18 <sup>h</sup> 52 <sup>m</sup> (continued)					R.A. 19 <sup>h</sup> 8 <sup>m</sup> (continued)					R.A. 19 <sup>h</sup> 16 <sup>m</sup> (continued)				
56,090	7026	9.2	19.7464	25.8630	57,689	7115	9.1	4.0606	23.7136	58,026	7205	8.4	3.9681	17.7678
56,007	7027	8.4	20.4814	20.4817	57,369	7116	9.0	4.5850	9.0222	57,977	7206	8.9	4.2457	15.2854
55,902	7028	8.5	20.6788	14.6094	57,192	7118	7.9	5.3743	2.0118	57,956	7210	9.0	5.1444	13.9294
55,944	7029	8.0	21.3579	17.2778	57,596	7119	8.9	5.7645	20.1596	57,817	7212	7.6	5.5927	2.0942
55,783	7030	9.2	22.2799	5.2624	57,305	7124	9.2	6.4785	6.1429	57,927	7213	9.2	5.8106	11.3330
55,771	7032	8.9	23.7230	4.3492	57,218	7125	9.2	6.5414	3.6465	57,957	7215	9.2	6.1801	14.6500
55,971	7035	8.4	24.5710	18.9377	57,153	7129	9.0	8.2933	0.7390	57,979	7217	8.9	7.0233	15.3098
55,928	7036	8.6	25.0026	15.6590	57,196	7130	9.2	8.3388	2.0651	58,002	7224	7.9	9.4402	15.7549
55,877	7037	8.2	25.3942	13.0070	57,354	7131	8.5	8.4290	8.1432	57,858	7225	9.4	9.5189	4.8645
					57,306	7132	9.0	8.7466	6.5446	58,013	7226	9.1	9.6795	16.7552
					57,496	7134	9.0	10.0232	14.9276	58,029	7229	9.2	12.1336	17.9206
					57,497	7135	8.8	10.4924	14.9647	58,134	7230	5.5	12.6419	25.4287
					57,535	7140	9.0	11.4927	16.2788	58,030	7231	8.0	12.7872	18.1854
					57,199	7146	8.6	12.9779	2.9393	57,838	7233	4.6	13.0005	2.7119
					57,451	7147	9.0	13.1009	13.0456	57,918	7236	8.5	14.5180	10.3479
					57,436	7148	8.8	13.6422	11.2091	57,839	7239	9.4	15.7079	3.2959
					57,227	7149	8.5	13.7740	3.5119	57,903	7243	9.1	16.3958	8.6144
					57,174	7150	8.0	13.9063	1.8517	58,078	7245	8.0	16.4454	21.5478
					57,739	7153	8.3	14.5888	25.8625	58,137	7251	7.8	17.7758	25.5653
					57,517	7155	8.9	15.7896	15.2620	57,906	7252	9.0	17.9732	9.3701
					57,702	7158	9.0	15.9794	23.7509	58,098	7253	9.0	18.3557	22.4826
					57,581	7159	7.8	16.0174	19.2243	57,808	7254	8.3	18.4771	1.0547
					57,518	7160	9.0	16.3386	16.1328	58,015	7255	8.0	18.8454	17.6581
					57,202	7161	9.1	16.7240	2.7877	57,881	7257	9.0	19.9306	7.0851
					57,203	7162	9.2	16.7345	2.8073	58,125	7258	8.8	19.9162	24.7638
					57,258	7165	8.0	17.8904	4.2647	57,907	7259	9.3	20.8762	8.9674
					57,478	7166	9.0	18.1293	13.3942	57,921	7262	9.3	21.1330	10.3129
					57,315	7170	8.5	18.9652	6.4534	58,080	7264	9.2	22.1334	21.4052
					57,316	7171	8.9	19.0677	6.6904	58,112	7266	8.9	22.2682	23.6261
					57,409	7172	9.0	19.3196	10.5688	57,825	7267	9.0	23.1470	2.2864
					57,607	7173	8.9	19.5099	19.3892	58,115	7268	8.9	23.1731	23.0932
					57,501	7175	Var.	20.0752	14.7668	57,947	7269	8.4	23.2172	13.3932
					57,319	7176	9.0	20.3475	6.9980	57,939	7270	9.0	23.3219	12.2463
					57,380	7177	8.7	20.3873	9.9416	57,924	7273	9.2	24.6231	10.4179
					57,347	7178	8.9	21.0770	7.8844					
					57,682	7179	9.2	21.2276	23.0030					
					57,322	7180	8.8	21.4481	6.4615					
					57,362	7181	8.9	21.5702	8.4017					
					57,415	7182	9.0	21.6323	10.1997					
					57,416	7183	8.9	21.8134	10.4244					
					57,524	7184	8.3	22.4071	15.7774					
					57,239	7186	8.4	22.9511	3.7675					
					57,240	7187	8.2	23.5536	4.0285					
					57,725	7188	8.4	23.6105	25.0286					
					57,418	7191	9.5	24.2029	10.4779					
					57,210	7192	8.2	24.3340	2.7716					
					57,486	7193	8.2	24.6981	14.2300					
					57,350	7194	9.3	24.7866	7.5319					
					R.A. 19 <sup>h</sup> 16 <sup>m</sup>									
					58,127	7188	8.4	0.7797	25.0369					
					57,910	7191	9.5	1.2235	10.4808					
					57,828	7192	8.2	1.2759	2.7736					
					57,954	7193	8.2	1.7570	14.2280					
					57,885	7194	9.3	1.7772	7.5291					
					57,832	7195	8.6	2.5077	2.6353					
					57,866	7197	9.0	2.7014	6.4441					
					57,926	7198	8.8	2.8956	11.4484					
					57,973	7199	9.2	3.0596	15.2085					
					57,800	7200	9.0	3.0985	1.1662					
					57,999	7201	9.0	3.2647	16.1221					
					57,896	7204	9.0	3.8424	9.1483					



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
<b>R.A. 19<sup>h</sup> 24<sup>m</sup> (continued)</b>					<b>R.A. 19<sup>h</sup> 40<sup>m</sup> (continued)</b>					<b>R.A. 19<sup>h</sup> 56<sup>m</sup> (continued)</b>				
58,783	7320	9.2	18.3481	19.4964	59,864	7423	9.1	10.4087	21.0915	60,440	7540	9.3	21.1235	10.1499
58,747	7321	8.4	18.5150	18.2974	59,865	7425	9.2	11.5011	21.7490	60,397	7543	8.8	21.6808	4.6985
58,573	7323	8.6	19.4085	13.2891	59,759	7426	9.0	11.6176	16.8454	60,426	7544	9.1	22.1295	8.0363
58,220	7326	8.2	20.8585	0.5733	59,514	7433	8.4	15.3805	6.4288	60,431	7545	7.5	23.5624	8.9061
58,400	7327	9.3	21.0103	6.8263	59,791	7434	9.2	15.7513	18.0934	60,355	7546	9.0	23.8069	0.3428
58,428	7329	9.2	21.3899	7.4087	59,444	7437	9.2	16.2908	3.0750	60,554	7548	9.0	24.0586	24.8400
58,515	7333	7.4	23.3299	10.9072	59,764	7439	7.2	17.0196	16.8797	60,464	7551	9.0	24.7671	13.7329
58,678	7334	9.0	23.4028	16.2635	59,766	7441	8.5	18.5250	16.7843	60,367	7552	8.8	24.8846	1.4881
58,623	7337	9.1	23.9667	13.4540	59,616	7444	9.1	19.3120	10.0068	<b>R.A. 20<sup>h</sup> 4<sup>m</sup></b>				
58,918	7339	9.3	24.7456	23.6743	59,870	7445	7.8	19.4207	21.7219	60,650	7545	7.5	0.5670	8.9158
58,252	7340	8.4	24.9124	1.5051	59,518	7448	8.6	21.2284	5.9463	60,600	7546	9.0	0.7241	0.3501
58,407	7342	8.9	25.1875	6.9112	59,425	7449	9.0	21.2525	1.9727	60,824	7548	9.0	1.2258	24.8441
<b>R.A. 19<sup>h</sup> 32<sup>m</sup></b>					59,473	7452	9.0	22.8565	3.7846	60,700	7551	9.0	1.8210	13.7299
59,228	7337	9.1	1.0177	13.4589	59,874	7453	9.2	23.1477	21.1192	60,604	7552	8.8	1.8135	1.4844
59,359	7339	9.3	1.9009	23.6711	<b>R.A. 19<sup>h</sup> 48<sup>m</sup></b>					60,767	7557	8.6	5.3852	18.8005
59,058	7340	8.4	1.8414	1.5014	60,060	7462	8.7	6.6577	2.4806	60,726	7560	9.1	6.5605	15.9992
59,121	7342	8.9	2.1717	6.9046	60,207	7464	8.8	7.2995	19.2763	60,727	7562	9.1	7.3190	16.4365
59,242	7344	9.2	2.6073	15.0484	60,208	7466	9.3	8.1584	19.5506	60,612	7563	8.9	7.9724	3.4294
59,308	7345	8.6	2.6558	19.4299	60,235	7467	9.4	8.2813	20.8329	60,601	7565	8.7	9.7775	1.1025
59,133	7346	8.4	2.9721	7.3465	60,209	7468	9.0	8.5410	18.9564	60,613	7568	9.2	11.3656	3.6390
59,152	7348	8.5	3.1854	8.1091	60,166	7469	8.6	9.3095	14.7077	60,753	7571	9.1	13.4933	17.8025
59,059	7349	9.4	3.2339	1.5771	60,179	7473	9.0	10.5537	16.4541	60,731	7573	8.6	17.1450	16.1695
59,261	7351	9.2	3.9719	16.0816	60,137	7478	8.5	13.2617	11.8537	60,608	7576	9.6	18.1464	2.9364
59,053	7355	9.2	7.7611	0.1541	60,237	7479	8.8	14.1225	21.0770	60,723	7578	9.4	20.1095	14.9288
59,054	7357	9.2	9.4482	0.8004	60,062	7482	8.4	15.8624	3.0917	60,745	7579	9.6	20.3985	16.9887
59,311	7358	8.8	9.9413	19.6693	60,193	7484	9.0	16.4055	16.7493	60,776	7586	9.3	22.6887	20.6008
59,154	7360	9.0	11.0826	9.0484	60,148	7488	9.4	17.2864	13.3937	60,724	7587	8.2	23.1918	15.1807
59,155	7361	9.0	11.5006	8.1014	60,270	7489	9.0	18.3509	22.8827	60,725	7588	9.4	23.4314	15.4401
59,287	7363	8.7	11.7064	17.7148	60,114	7493	8.9	20.6847	8.6504	60,733	7592	9.4	24.0936	16.2211
59,168	7366	8.9	12.8213	9.1104	60,054	7495	8.3	21.3410	0.6455	60,822	7594	8.6	25.1505	24.7654
59,064	7372	9.5	14.4226	1.3841	60,292	7496	8.9	21.6246	25.1222	60,699	7595	8.6	25.3100	12.6647
59,273	7373	8.8	15.7533	16.8451	60,132	7497	8.6	21.8816	11.5859	<b>R.A. 20<sup>h</sup> 12<sup>m</sup></b>				
59,330	7376	9.2	17.0254	20.5806	60,196	7499	9.2	23.7257	17.2400	61,143	7592	9.4	1.1726	16.2250
59,247	7377	8.1	17.1732	14.6539	<b>R.A. 19<sup>h</sup> 56<sup>m</sup></b>					61,292	7594	8.6	2.3169	24.7571
59,248	7378	8.1	17.2038	14.6322	60,490	7499	9.2	0.8154	17.2479	61,095	7595	8.6	2.3528	12.6560
59,076	7381	9.2	18.0341	2.2585	60,383	7503	8.1	2.9451	3.8667	60,935	7596	8.8	3.0653	4.7769
59,274	7383	9.4	19.2106	16.3924	60,411	7504	9.3	3.3210	6.4176	61,077	7599	9.0	3.3644	11.9540
59,275	7386	9.3	19.2937	16.3681	60,357	7507	8.9	3.9214	1.2486	61,120	7604	8.6	4.9719	13.6610
59,333	7388	9.1	19.4176	21.2979	60,391	7509	8.8	5.8541	4.6567	60,959	7606	9.0	5.6253	6.1582
59,251	7392	8.8	20.2960	14.2991	60,536	7510	9.3	6.7736	23.7600	61,129	7607	8.0	5.9151	14.8632
59,066	7393	8.8	20.6390	1.4840	60,351	7511	9.0	7.9115	0.7088	60,895	7610	8.6	6.8060	2.9390
59,144	7395	6.8	21.6099	7.2890	60,373	7512	7.6	9.5985	2.9204	61,011	7613	7.9	8.3213	8.2071
59,145	7397	9.0	21.7115	7.1762	60,374	7513	9.1	9.8751	2.8734	61,131	7615	9.0	9.1897	15.0296
59,159	7398	9.2	21.8496	8.3982	60,362	7514	8.8	10.4561	0.9721	61,026	7616	9.1	9.5777	8.8022
59,068	7402	9.1	23.5721	1.1911	60,510	7515	9.4	11.1353	21.1845	61,151	7622	8.8	11.4207	16.4276
59,209	7404	9.3	24.4793	11.6655	60,446	7517	9.0	11.5859	11.0862	60,993	7623	9.3	12.1927	7.0079
<b>R.A. 19<sup>h</sup> 40<sup>m</sup></b>					60,467	7522	8.2	12.4654	14.7104	60,897	7624	7.8	12.3996	2.6173
59,646	7404	9.3	1.5120	11.6655	60,529	7523	8.1	13.3475	22.9170	60,898	7626	9.3	13.1345	2.6816
59,553	7408	9.2	3.6221	7.7666	60,378	7525	8.4	15.5294	2.8270	61,013	7627	9.0	13.8665	7.8181
59,480	7409	5.9	3.7827	5.3174	60,407	7526	9.0	16.2298	5.1134	61,270	7628	9.3	15.0070	23.5044
59,524	7410	9.4	4.4534	6.5244	60,512	7528	8.0	16.9030	20.5231	60,968	7629	9.0	15.1645	5.6148
59,525	7411	9.2	4.4805	6.7261	60,461	7531	8.8	18.6377	13.3417	60,903	7631	8.4	16.7342	3.0290
59,458	7413	9.0	5.1865	4.1061	60,452	7532	9.0	19.4114	11.9618	61,069	7634	9.1	17.6404	10.7240
59,602	7414	9.1	5.4745	10.4339	60,439	7535	9.2	19.8406	9.8889	61,254	7637	8.4	18.7382	22.6232
59,459	7417	8.9	6.7084	3.5836	60,520	7536	9.2	20.5308	21.9407	61,274	7641	9.0	19.8939	22.7498
59,840	7421	8.1	9.4346	20.6712	60,353	7537	9.0	20.7103	0.8778	61,171	7645	9.4	21.7198	16.8857
					60,388	7538	9.0	20.7028	3.3656	61,141	7648	8.3	22.2662	14.7582
					60,354	7539	9.0	20.7315	0.4519					



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
R.A. 20 <sup>h</sup> 12 <sup>m</sup> (continued)					R.A. 20 <sup>h</sup> 36 <sup>m</sup>					R.A. 20 <sup>h</sup> 52 <sup>m</sup> (continued)				
61,173	7650	9.3	22.4476	16.9686	62,658	7761	9.2	0.5968	15.7114	63,258	7871	9.2	5.9794	7.1274
61,112	7651	8.8	22.5008	13.1609	62,450	7762	9.0	0.7054	5.5503	63,323	7872	9.2	6.3301	12.2127
61,174	7655	9.0	23.0270	17.5232	62,714	7764	7.5	1.9796	18.6767	63,349	7873	9.2	6.5187	13.5934
61,211	7658	9.0	23.5760	19.3263	62,775	7766	9.2	2.3806	20.9436	63,240	7874	9.2	6.6733	6.1444
61,022	7660	8.5	24.6572	8.1734	62,720	7768	8.7	4.5527	17.9925	63,426	7876	7.4	7.7302	18.9331
					62,439	7769	9.1	4.7490	4.7487	63,441	7879	7.8	8.7815	20.5099
					62,401	7771	9.1	5.1168	3.1401	63,204	7880	8.4	10.6220	3.8142
R.A. 20 <sup>h</sup> 20 <sup>m</sup>					62,575	7774	8.0	5.5791	11.9320	63,508	7881	8.6	11.0147	23.8105
					62,552	7775	9.1	5.7434	10.6782	63,168	7882	9.0	11.7801	2.1981
					62,501	7779	9.6	7.5875	8.1349	63,275	7883	8.9	11.8373	7.6846
61,565	7658	9.0	0.6870	19.3352	62,484	7782	6.2	9.9021	6.7633	63,313	7886	9.4	12.5855	10.9727
61,443	7660	8.5	1.6539	8.1716	62,605	7789	9.1	11.9622	13.5883	63,243	7887	6.8	13.2254	5.9968
61,512	7661	8.9	3.0130	14.1847	62,841	7790	9.2	11.9962	24.4440	63,314	7888	8.8	14.2989	10.8684
	7662	8.1	3.1150	0.3347	62,782	7791	7.8	12.0103	21.8030	63,358	7891	8.8	14.7264	13.9547
61,379	7663	8.8	3.5436	2.7678	62,842	7793	9.2	12.4230	24.8256	63,413	7892	8.6	15.0984	17.8324
61,481	7664	8.5	4.0509	11.0915	62,728	7795	8.9	14.6124	18.2273	63,315	7894	9.1	16.2976	10.5738
61,352	7665	9.2	4.3099	0.5256	62,366	7797	8.6	15.9943	1.3458	63,171	7896	8.8	16.8888	2.2222
61,369	7668	8.1	5.9587	2.3315	62,528	7798	9.2	16.1095	9.4880	63,159	7897	9.0	16.9573	1.1920
61,576	7671	9.4	7.8418	20.1773	62,433	7799	8.6	16.2987	4.2018	63,388	7900	8.2	18.2694	16.2143
61,550	7675	8.5	9.6846	17.0042	62,369	7801	9.0	17.2153	0.7649	63,495	7902	9.0	18.7432	23.2704
61,406	7676	9.4	9.8065	4.9935	62,704	7802	9.5	17.7252	17.5339	63,460	7903	8.8	19.7592	21.1430
61,617	7677	9.5	10.3499	23.7862	62,408	7805	8.6	19.3839	3.0618	63,535	7904	9.0	19.8855	25.1742
61,462	7678	9.0	12.0234	9.2906	62,628	7806	9.2	19.4204	14.4718	63,229	7908	9.1	20.8388	4.5832
61,579	7680	9.2	12.1895	20.7526	62,532	7812	9.2	22.3824	9.5652	63,191	7911	8.8	21.1073	2.8031
61,410	7688	9.3	14.7755	5.0030	62,476	7813	9.0	23.4052	5.8057	63,307	7912	9.4	21.2189	10.1138
61,594	7692	7.9	15.3885	21.4484	62,415	7814	7.8	23.4712	2.9554	63,213	7913	8.8	22.1845	3.6970
61,390	7694	8.5	16.7952	3.8414	62,416	7815	9.0	23.5775	2.8052	63,516	7914	6.9	22.2382	24.0726
61,561	7695	8.4	17.1262	18.1340	R.A. 20 <sup>h</sup> 44 <sup>m</sup>					63,391	7916	9.0	24.1922	15.9888
61,555	7700	9.2	17.9795	17.7547	62,913	7815	9.0	0.5198	2.8146	63,321	7917	8.1	24.4930	10.9564
61,596	7704	8.4	20.7523	20.9692	63,084	7818	9.0	3.2985	20.7272	R.A. 21 <sup>h</sup> 0 <sup>m</sup>				
61,374	7706	7.2	21.9151	1.8836	63,029	7819	9.3	3.7537	13.9777	63,825	7916	9.0	1.2691	15.9918
61,612	7707	7.8	22.4002	22.2098	63,013	7820	8.8	4.0783	13.7767	63,747	7917	8.1	1.5185	10.9564
61,416	7708	9.3	22.8483	4.5458	63,062	7821	7.9	4.2148	19.3319	63,908	7920	8.4	3.7143	21.4603
61,598	7710	9.3	24.1294	21.8856	63,072	7822	9.2	5.7770	20.0509	63,971	7921	9.2	3.9809	24.9045
R.A. 20 <sup>h</sup> 28 <sup>m</sup>					62,932	7824	8.8	6.5598	4.5500	63,735	7925	9.2	4.9621	10.2542
62,193	7710	9.3	1.2665	21.8888	62,900	7825	8.4	6.8159	0.7837	63,946	7928	7.2	6.4603	23.3720
61,848	7711	9.3	2.8851	7.8346	62,908	7827	9.1	7.5256	1.7813	63,888	7931	9.3	7.8588	19.8796
62,051	7712	9.4	3.0073	17.4099	62,969	7828	9.2	7.9766	8.5420	63,925	7932	9.1	8.0571	22.2348
62,168	7713	9.2	3.6578	21.6090	62,983	7829	9.0	8.2103	11.0085	63,961	7933	8.9	9.3992	24.1493
61,849	7714	9.2	3.8031	8.3032	62,973	7830	7.9	8.7159	9.5760	63,751	7934	8.6	9.4468	10.9012
61,927	7715	8.3	4.3813	11.6271	63,016	7832	8.0	8.9542	14.2636	63,645	7935	9.0	9.4953	3.2465
61,733	7716	8.0	4.7472	2.2918	62,989	7833	7.2	8.9682	11.6570	63,613	7936	8.9	10.0019	1.3858
61,887	7719	9.2	5.8156	10.3366	63,042	7838	9.2	11.3790	16.8280	63,891	7937	7.9	10.8319	19.7286
62,117	7720	8.3	6.3059	18.7067	62,995	7845	9.4	14.3748	12.0541	63,721	7939	8.8	11.5377	8.3638
62,055	7724	8.9	8.9460	17.1153	63,088	7850	8.8	16.7469	20.9716	63,868	7941	9.2	12.9261	18.1467
61,834	7725	9.2	9.0292	6.6318	62,986	7852	8.1	17.2532	10.4576	63,898	7944	5.0	13.9331	20.5635
61,929	7728	7.8	9.7371	12.3721	63,109	7855	8.3	18.3013	23.5528	63,836	7945	~	15.1012	15.8090
61,814	7732	8.8	11.4000	5.3870	62,997	7857	9.4	19.6543	11.6689	63,766	7946	9.4	16.1429	12.3099
61,710	7735	9.1	12.2854	0.2791	62,964	7859	8.6	22.2639	7.5092	63,605	7948	9.0	16.5948	0.6799
62,154	7737	9.2	14.5723	20.2888	63,111	7860	9.0	22.4198	24.2274	63,662	7949	9.0	16.8041	4.5454
61,724	7740	9.2	14.9734	1.4372	63,055	7861	8.9	22.4558	17.6000	63,680	7950	7.8	17.5519	5.4884
62,034	7745	9.0	15.6109	16.0891	62,930	7862	9.0	22.8701	3.9622	63,631	7952	8.1	17.7395	2.7363
61,751	7748	8.4	16.4753	2.6813	63,090	7864	9.4	23.4182	21.3368	63,754	7953	8.5	17.8024	10.8825
61,917	7752	6.8	18.3935	11.4391	63,035	7866	8.8	24.6441	16.1640	63,769	7954	8.9	18.3893	11.6164
62,155	7753	9.1	18.6861	19.8764	63,082	7867	9.3	24.7794	20.4112	63,953	7956	7.4	19.0768	23.2884
62,070	7755	8.6	20.4082	17.3810	R.A. 20 <sup>h</sup> 52 <sup>m</sup>					63,616	7958	8.1	19.9464	1.3226
62,072	7759	9.1	22.1567	17.3335	63,382	7866	8.8	1.7227	16.1620	63,819	7960	8.2	20.5346	14.5028
62,044	7761	9.2	23.5229	15.7015	63,438	7867	9.3	1.9014	20.4072	63,917	7965	9.2	21.8729	21.2515
61,822	7762	9.0	23.7350	5.5428						63,714	7967	9.2	23.3539	7.7868
62,106	7764	7.5	24.8753	18.6808						63,790	7968	7.4	23.9895	13.2786
62,187	7766	9.2	25.2532	20.9526										



Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.	Hyd.	Washington.		ξ.	η.
R.A. 21 <sup>h</sup> 8 <sup>m</sup>					R.A. 21 <sup>h</sup> 32 <sup>m</sup>					R.A. 21 <sup>h</sup> 56 <sup>m</sup>				
64,159	7968	7.4	1.0387	13.2835	64,995	8106	9.4	1.3986	6.9139	65,740	8227	9.0	1.1780	9.5747
64,235	7972	9.2	2.5463	21.0131	65,010	8108	7.8	1.9178	8.7162	65,671	8238	9.2	6.6560	2.5476
64,061	7974	8.6	3.1458	2.3102	65,119	8111	8.7	3.2045	21.4464	65,805	8239	9.4	6.7852	16.9314
64,190	7975	9.0	3.7862	17.3882	65,074	8113	9.0	4.1856	15.3010	65,850	8241	8.3	7.1162	22.4593
64,121	7976	Var.	4.5346	7.9754	65,062	8115	9.1	4.8126	15.2217	65,756	8242	9.4	7.8036	10.6472
64,261	7977	8.9	4.7922	23.5966	65,046	8116	8.6	4.8084	12.6270	65,763	8244	9.1	9.4224	11.4768
64,145	7980	9.2	6.3014	10.6226	65,075	8118	9.0	5.1797	15.1248	65,860	8245	8.1	9.6665	23.3871
64,102	7981	8.4	6.7037	6.2174	65,016	8120	8.8	6.3877	9.5322	65,869	8250	9.4	13.0704	23.9289
64,203	7988	9.2	10.1165	18.0662	64,950	8122	9.2	6.6238	0.1688	65,666	8252	7.8	13.2902	2.1098
64,080	7989	8.7	10.5038	4.1085	65,063	8123	8.8	7.9036	14.2163	65,870	8253	9.2	13.8202	24.2311
64,224	7991	8.9	11.0877	20.0707	64,968	8124	8.6	8.3209	2.7056	65,798	8254	8.9	14.0572	16.0976
64,274	7994	8.5	13.5327	24.7252	65,064	8126	9.0	9.8908	14.8922	65,819	8258	8.3	15.7657	18.3659
64,238	7998	9.0	14.5969	21.2126	65,105	8128	8.7	10.4341	19.5690	..	8259	8.3	15.7829	18.3572
64,226	8002	9.1	16.3444	20.5915	65,018	8133	9.1	12.9358	10.0324	65,734	8260	9.0	15.9047	9.0217
64,275	8005	9.0	16.9307	24.8604	65,019	8134	8.8	13.8429	9.4156	65,874	8261	8.9	17.2207	23.9310
64,253	8006	6.0	17.3317	22.1134	65,115	8135	8.1	14.1388	20.9010	..	8262	Var.	18.3695	14.3197
64,071	8008	9.0	17.7542	2.8227	65,083	8139	8.4	15.9572	16.7561	65,735	8263	9.0	18.4620	8.8784
64,104	8010	9.2	18.3961	5.7819	64,961	8140	8.9	16.0892	1.5823	65,855	8265	9.4	19.3285	22.3045
64,114	8013	8.4	18.8288	7.0807	65,001	8144	9.2	19.6408	6.4999	65,706	8266	9.0	19.6785	5.7625
64,241	8020	9.0	22.6397	21.0161	65,069	8145	3.6	20.3154	14.3808	65,736	8267	8.5	20.9201	8.7724
64,107	8021	9.3	23.6367	5.7424	65,079	8147	9.1	21.8444	15.6681					
64,095	8025	8.7	25.4238	4.7411										
R.A. 21 <sup>h</sup> 16 <sup>m</sup>					R.A. 21 <sup>h</sup> 40 <sup>m</sup>					R.A. 22 <sup>h</sup> 4 <sup>m</sup>				
64,397	8021	9.3	0.6090	5.7508	65,369	8154	8.2	2.7629	21.1669	65,991	8272	8.5	3.0518	6.8290
64,384	8025	8.7	2.3859	4.7328	65,333	8156	9.3	3.7542	16.9215	66,052	8276	9.2	4.7638	14.6751
64,631	8026	7.8	3.4809	23.6030	65,222	8157	8.2	4.5398	3.6169	66,087	8278	9.4	8.4689	18.3917
64,650	8028	9.2	4.3415	24.4517	65,302	8158	9.3	4.5899	13.1808	65,994	8279	8.5	8.5084	6.8852
64,424	8033	6.8	6.3747	8.2018	65,385	8164	8.3	7.3212	23.1346	66,081	8281	9.3	8.7433	16.9945
64,515	8034	9.0	7.3981	15.3908	65,251	8167	9.1	9.5637	7.2004	66,060	8282	9.3	9.1961	15.1413
64,475	8039	9.0	9.0367	11.7274	65,241	8168	7.6	9.6082	6.1459	66,046	8283	8.2	10.0952	13.3884
64,563	8041	9.0	9.3935	18.2004	65,304	8169	8.9	10.7104	12.8222	66,069	8284	9.2	10.2951	16.5637
64,405	8043	8.3	13.7483	5.8256	65,213	8172	9.0	11.8323	1.6999	66,055	8285	9.1	10.3730	14.2118
64,443	8044	8.0	13.8247	9.3279	65,253	8179	8.8	15.3076	6.4617	65,971	8294	9.3	15.5969	4.2564
64,373	8048	9.4	14.5217	2.6656	65,306	8180	9.4	16.9960	12.9913	65,988	8295	8.9	15.6868	6.1560
64,532	8049	5.0	14.9462	16.1274	65,263	8181	3.0	17.3749	7.9745	66,017	8297	9.4	17.4157	9.3882
64,478	8052	9.0	16.3482	12.5919	65,325	8185	7.8	18.6647	15.6992	66,056	8304	8.8	23.5504	14.4174
64,466	8057	9.4	19.7383	11.4063	65,381	8186	8.1	18.9738	22.1019	65,989	8306	9.2	24.1952	6.4356
64,416	8059	8.8	21.0796	6.9093	65,264	8187	9.0	19.8430	7.5046	66,117	8307	9.3	24.3288	21.7349
64,410	8062	9.1	22.8316	5.9480										
64,468	8064	9.4	23.4333	11.0124										
R.A. 21 <sup>h</sup> 24 <sup>m</sup>					R.A. 21 <sup>h</sup> 48 <sup>m</sup>					R.A. 22 <sup>h</sup> 12 <sup>m</sup>				
64,882	8071	9.2	4.9563	21.4373	65,599	8193	9.3	3.5504	22.3636	66,290	8304	8.8	0.6113	14.4272
64,781	8072	9.2	5.9683	11.4121	65,568	8194	6.6	3.5979	16.7544	66,246	8306	9.2	1.1746	6.4384
64,762	8077	9.3	8.7357	9.1450	65,505	8195	8.4	4.1261	8.9250	66,352	8207	9.3	1.4644	21.7359
64,884	8080	9.0	9.5719	21.3132	65,553	8199	9.0	10.1043	15.5704	66,260	8309	9.0	3.5762	9.1851
64,751	8081	9.2	10.3734	8.0294	65,515	8200	9.0	10.3922	9.7361	66,285	8310	9.0	4.3212	14.2672
64,742	8083	9.2	11.3903	7.2725	65,469	8201	8.8	10.6110	4.3018	66,209	8311	9.2	4.6529	1.8511
64,821	8088	9.2	14.6512	14.7706	65,578	8202	8.8	10.6938	19.4324	66,227	8313	7.2	5.0002	4.6638
64,771	8089	8.4	15.1824	9.9158	65,556	8206	8.9	13.5626	15.6544	66,222	8314	8.6	5.3001	3.3749
64,876	8090	9.0	15.6095	20.1754	65,535	8207	9.0	13.6469	12.8555	66,346	8315	9.2	5.9559	20.7007
64,727	8095	9.3	17.1996	4.5333	65,548	8211	9.5	14.5570	14.2518	66,248	8318	9.1	9.1358	6.7477
64,888	8096	8.8	17.8443	21.3925	65,589	8212	8.6	14.5802	20.5932	66,348	8320	8.6	9.6769	21.4396
64,715	8098	9.0	21.3632	2.8304	65,549	8213	9.4	14.9005	14.3804	66,276	8323	8.7	11.3278	11.5946
64,746	8106	9.4	24.4143	6.9129	65,453	8216	9.5	19.1585	0.8047	66,327	8324	8.9	11.6322	18.7882
64,766	8108	7.8	24.9151	8.7200	65,467	8217	9.0	19.5248	2.6501	66,253	8329	8.6	12.8759	7.4496
					65,477	8221	9.2	21.8415	4.9697	66,250	8330	7.1	13.1112	6.7482
					65,472	8222	9.4	22.4145	4.3457	66,240	8331	9.0	14.1194	6.1888
					65,456	8223	9.0	22.6989	2.1088	66,217	8333	9.2	16.2113	2.9004
					65,484	8226	9.2	23.5398	6.2570	66,277	8336	9.2	17.4664	11.3619
					65,521	8227	9.0	24.1667	9.5718	66,304	8338	8.2	19.1597	15.4460
										66,212	8340	8.9	19.5425	1.3598
										66,287	8344	9.3	21.7574	13.9923







Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.		Reference No.		Mag.	Standard co-ordinates, 1900-0.	
Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.	Hyd.	Washington.		ξ'.	η'.
<b>R.A. 23<sup>h</sup> 24<sup>m</sup> (continued)</b>					<b>R.A. 23<sup>h</sup> 40<sup>m</sup> (continued)</b>					<b>R.A. 23<sup>h</sup> 48<sup>m</sup> (continued)</b>				
68,388	8676	8.0	17.8395	7.4003	68,830	8728	9.0	4.1261	10.8599	69,068	8787	9.0	12.4488	13.4324
68,354	8678	9.4	18.6080	1.9599	68,753	8729	6.0	5.1682	1.0379	69,001	8788	9.3	13.3992	7.6823
68,500	8684	9.4	21.6368	21.8332	68,842	8734	9.2	9.2547	11.6395	68,985	8789	9.2	14.7487	6.0614
68,462	8688	8.1	23.2233	17.7193	68,894	8735	9.2	9.3142	17.5322	68,968	8791	8.9	16.3951	3.3382
68,360	8689	9.5	23.5147	2.6667	68,781	8737	9.0	9.7129	3.6111	69,171	8797	9.0	22.8416	22.9040
<b>R.A. 23<sup>h</sup> 32<sup>m</sup></b>					68,859	8742	9.2	12.9608	13.7636	69,147	8798	9.2	23.1128	20.4041
68,623	8692	8.6	3.4266	11.4082	68,921	8748	8.2	15.5878	21.2930	69,060	8799	9.2	23.4059	12.3911
68,683	8697	9.2	5.0543	20.9941	68,923	8752	9.0	18.5797	20.8663	69,016	8800	9.2	25.1975	8.8646
68,677	8698	8.0	5.5281	19.6083	68,815	8754	8.8	19.9812	7.4754	<b>R.A. 23<sup>h</sup> 56<sup>m</sup></b>				
68,662	8699	9.2	5.9399	17.7400	68,796	8755	9.2	20.2297	5.9015	69,237	8800	9.2	2.2016	8.8579
68,663	8701	8.9	7.7730	18.0507	68,886	8757	7.7	21.6032	16.0577	69,298	8801	9.2	3.8547	19.9092
68,640	8702	7.6	8.0245	14.6328	68,836	8761	9.0	23.1278	10.9266	69,225	8803	6.8	4.9685	5.8612
68,616	8705	8.0	9.4237	11.1068	68,838	8763	8.4	24.3758	10.8385	69,309	8804	9.2	5.2860	22.4168
68,600	8707	9.2	11.5299	8.1978	<b>R.A. 23<sup>h</sup> 48<sup>m</sup></b>					69,246	8807	9.4	7.2701	10.3329
68,689	8708	9.0	11.5983	22.4874	69,031	8763	8.4	1.3999	10.8395	69,288	8808	8.7	7.8315	19.0062
68,678	8711	9.2	13.1006	20.3163	68,978	8767	7.3	2.5268	6.0176	69,276	8813	7.9	10.9926	16.0352
68,664	8713	9.3	13.6163	18.3742	69,175	8770	8.9	4.5460	24.2008	69,285	8814	9.2	12.7724	17.5947
68,680	8720	9.0	20.2690	20.1426	69,012	8775	8.8	6.3120	9.1692	69,268	8815	8.3	14.7588	14.0727
68,554	8722	8.7	21.7956	0.7122	..	8777	9.2	8.6284	0.0100	69,244	8816	9.2	15.7532	9.5026
<b>R.A. 23<sup>h</sup> 40<sup>m</sup></b>					69,123	8778	9.4	8.9925	18.2194	69,228	8820	9.0	17.1553	5.6614
68,878	8724	8.9	2.6369	15.7916	69,066	8780	8.8	10.3609	12.4626	69,322	8824	4.3	20.4720	23.7267
68,773	8725	9.1	2.6210	3.1536	68,983	8781	9.2	10.3839	5.9289	69,269	8827	7.4	22.1951	14.0261
68,750	8727	8.6	3.7425	1.2291	69,038	8782	9.2	11.1348	11.3847	69,229	8828	9.1	22.2413	5.6514
					69,052	8784	8.1	11.6812	12.1701	69,233	8829	8.8	23.0486	6.3696
					69,103	8786	9.0	12.0895	16.2575	69,287	8830	8.4	23.8044	17.9493























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